Gleanings in Bee Culture

CONTENTS

October, 1953

Established 1873 Vol. 81, No. 10

Honey Market 581
It's Time to Think About Packing — A. W. Kruse ..... 585 - 587
More Stingless Bees 587
Wrapping Hives for Winter 588
How to Handle Cappings — G. F. Townsend and A. Adie ..... 589 - 591
Sales Promotion of Honey Must Never Cease — H. H. Root ..... 592 - 593
Honey Helps Hillary 593
Trends in Honey Packing Plants, Equipment, and Methods — Dr. E. J. Dyce ..... 594 - 595
Honey Plants in South Jersey — Paul Hadley 596
The Bees of Kiliatos — Gordon Cotler ..... 597 - 599
Adventures in Beekeeping — Robert D. Oglesby ..... 600 - 601
New York Has a Coronation 601
Good Eating Ahead — Mrs. Benj. Nielsen 602
Live and Learn — Propolis Pete 603
Second Glances — C. M. Isaacson 604
American Honey Institute News Notes 605
Asked and Answered ..... 606 - 607
Editorials ..... 608 - 610
From North, East, West and South ..... 611 - 618
Bee Facts 619
A Middle Entrance— David Bone ..... 620 - 621
Extracting and Straining Honey — M. J. Deyell 621
Counts Bees on Blossoms — Walter Barth ..... 622 - 623
New Book on Honey Bees Can Be Free to You 623
West Coast Beekeeping Library — Gertrude Lauritzen 623
Who's Afraid of Bees? 624
Honey and Other Finds in Old Europe — Woodrow Miller ..... 624 - 625
From Cigarettes to Honey 625
A Talk to Beginners — M. J. Deyell ..... 626 - 628
Just News ..... 629 - 632
Average Monthly Weather Resume and Outlook — U. S. Weather Bureau .. 633

Subscription Rates: United States, Canada, Pan American countries, and Spain, one year, $2.00; two years for $3.50; three years for $5.00. Single copy, 20c. Other countries, 50c per year additional for postage. Discontinuance: Subscription stopped on expiration. No subscriber will be run into debt by us for this journal. Change of Address: Give your old address as well as the new and write the name to which the journal has heretofore been addressed. Remittance should be sent by post office money order, bank draft, express money order, or check. Contributions to Gleanings columns solicited; stamps should be enclosed to insure return of manuscript to author if not printed. Advertising Rates: Advertising rates and conditions will be sent on request. Results from advertising in this journal are remarkably satisfactory. Advertisers' Reliability: While the publishers do not guarantee advertisements in this journal, they use utmost diligence to establish in advance the reliability of every advertiser using space in this journal.

Entered as second class matter at Post Office at Medina, Ohio. Published monthly. Opinions expressed by the writers in these columns are not necessarily the opinions of the editors.

The A. I. Root Company, Publishers, Medina, Ohio

M. J. Deyell, Editor; M. W. Hobart and Walter Barth, Assistant Editors
H. H. Root, Associate Editor

Michigan Beekeepers:

Visit our modern
Honey Packing Plant
Ask for Al Tennenhouse

We carry a complete Line of
ROOT QUALITY
Bee Supplies

5-pound jars (Frosted Shoulders)

60-pound cans—Large Handles
3½-inch openings

Prompt Mail Order Service

Free Parking for Cash & Carry Customers

Prairie View Honey Co.
12303 - 12th St., Detroit 6, Mich.
Cash Paid for Honey & Beeswax

OLDEST BEE JOURNAL IN THE ENGLISH LANGUAGE

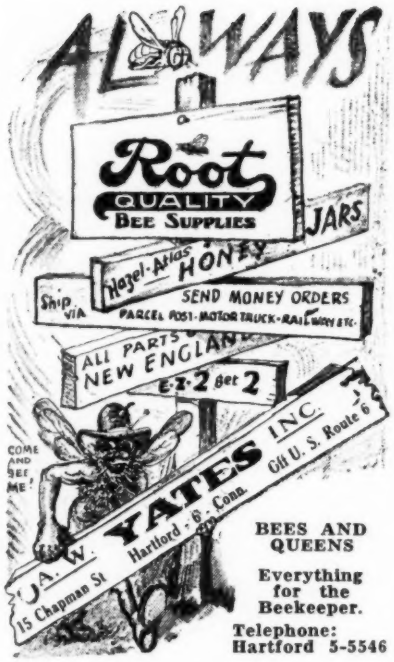
Keep up on markets, practices, scientific data, regulations, and plant possibilities.

1 year, $2.00, U. S. and Canada
Foreign postage, 50c a year extra

AMERICAN BEE JOURNAL
Hamilton, Illinois

The New Zealand Beekeeper
The Quarterly Magazine of the National Beekeepers' Association of New Zealand. Better Beekeeping—Better Marketing. Subscription, 8 shillings per year, payable to
THE GENERAL SECRETARY
Box 19 Foxton, New Zealand

BRITISH BEE JOURNAL
The Only WEEKLY BEE Journal in the World
Subscription $3.00 per annum payable in advance.
Keep up to Date in Beekeeping by taking out a subscription now through our agents:
Gleanings in Bee Culture
Medina, Ohio



BEES AND QUEENS
Everything for the Beekeeper.
Telephone: Hartford 5-5546

Peace is for the strong . . .
Buy U. S. Defense Bonds regularly!

give to
MDA
FIGHT MUSCULAR DYSTROPHY
MUSCULAR DYSTROPHY ASSNS.
39 BROADWAY, N. Y. C. 6

the Hubbard APIARIES

WANTED: Honey and Beeswax

Write for Free Catalog

Quality Bee Supplies — **Factory Prices**
Prompt shipment from Stock — **Satisfaction Guaranteed**

THE HUBBARD APIARIES

Manufacturers of Bee Supplies and Comb Foundation
Onsted, Michigan

LET US TAKE CARE OF YOUR CONTAINER NEEDS
5% discount on $ 50.00 orders
10% discount on 100.00 orders

GLASS JARS

	Queenline	Economy	Sh. Wt.
5 lb. Jars, per reshipping carton of 6		$ .62	10 lbs.
2 lb. Jars, per reshipping carton of 12	$ .80	.68	11 lbs.
1 lb. Jars, per reshipping carton of 24	1.20	1.00	11 lbs.
½ lb. Jars, per reshipping carton of 24	.95	.92	9 lbs.
2½ lb. Square Jars for chunk honey, carton of 12		1.10	12 lbs.

Sample mailing bottle — 15c each ..... $1.20 per doz.

TIN CONTAINERS
Friction Top Pails with Bails

	Price	Sh. Wt.
5 lb. — Per Carton of 50 — 13c each	$ 6.00	27 lbs.
5 lb. — Per Carton of 100 — 13c each	11.65	46 lbs.
10 lb. — Per Carton of 50 — 18c each	8.75	44 lbs.
60 lb. Square Cans, in bulk, each	.62	3 lbs.
60 lb. Square Cans, per carton of 24	14.80	72 lbs.

Write for Label Samples
Cellophane Window Front Cartons for All Sizes
Per 100 — $2.35, wt. 6 lbs. Per 500 — $10.95, wt. 25 lbs. Per 1000 — $21.50, wt. 50 lbs.
Decorated Cellophane Wrappers for All Sizes
Per 100 — $1.30 Per 500 — $6.30 Per 1000 — $12.55

AUGUST LOTZ COMPANY **BOYD, WISCONSIN**
Manufacturers & Jobbers Bee Supplies

H. H. JEPSON CO. — 46 Lincoln St., Boston, Mass.
Supplying N. E. Beekeepers with A. I. Root products for 50 years.
Boston Stock — Root Prices

HONEY WANTED
Bryant & Sawyer
2425 Hunter St., Los Angeles 21

Canada's National Monthly Magazine for Beekeepers
Canadian Bee Journal
Streetsville, Ontario, Canada
U. S. Subscription Price, only $1.75 per year.

We work your beeswax and purchase all grades of honey.

We pay you the best prices for quality honey and beeswax.

Send for our new 1953 Catalog

The Fred W. Muth Co.

229 Walnut St., Cincinnati 2, O.

"*Wise-Woodmanize with your Bee Supplies*"
A. G. Woodman Co (Send for Catalog - 350 Listings) Grand Rapids 4, Mich

The MASTER
(formerly Macy)
Electric Uncapping Knife with thermostat and exposed adjusting screw. Rubber cord. Crucible steel blade.
Price $14.25
HUTCHISON MFG. CO., 2008 S. Sepulveda Blvd., Los Angeles 25, Calif.

HONEY WANTED
Cut Comb and Extracted
Advise what you have
T. W. BURLESON & SON
WAXAHACHIE, TEXAS

Send for our Free
Label Catalog
showing 70 different
beautiful labels.
The A. I. Root Company
Medina, Ohio

POLIO
Research
will mean
Victory!

GAMMA GLOBULIN—
obtained from human blood—protects for a few weeks. But it is in *very short supply.*

When POLIO is around, follow these PRECAUTIONS
1 Keep clean
2 Don't get fatigued
3 Avoid new groups
4 Don't get chilled

A VACCINE
is not ready for 1953. But there is hope for the future.

THE NATIONAL FOUNDATION FOR INFANTILE PARALYSIS

Package Bees & Queens
Quality & Service
C. F. KOEHNEN & SONS
Glenn, California

If you are taking time to read, why not read the best? Condensed to save you time. Illustrated to give you pleasure.
Modern Beekeeping
The Picture Bee Magazine
Box 210 Clarkson, Kentucky

INDIANA BEEKEEPERS
Please see us for your
Honey Containers.
Write for price list.
Free label catalog.
A. I. Root Co. of Indianapolis
121 N. Alabama Street
Indianapolis 4, Indiana
Tel. Li. 2732

PROTECT YOUR FUTURE. BUY YOUR SAVINGS BONDS NOW.

Monthly Honey Report

September 21, 1953

The following figures represent an expression of current prices from beekeepers and honey packers over the country. They are based on several reports from each state averaged with the reports in the region. Where insufficient information is returned, prices have been omitted from the chart. Where three figures appear on the chart the first figure represents the low, the middle figure represents the average, and the third figure the high price in cents per pound. Where only two figures are used the low and high are shown.

	North Atlantic	South Central	North Central	Mid-West	West
Bulk Honey:					
Table Grade	12½ 18c		10-11-12c	10-12-13c	
Industrial Grade	10		9-10-11	9½-10-11	10
Price to Grocers:					
5 lb. jar - can	17-20-23	17-22-25	16-18-20	16-17-18	18-19-22
3 lb. jar - 12's	20¾-23-27	21⅓-25-26⅔	25 30		
2 lb. jar - 12's	20½ 21	20½ 25	18½-25-27	20-21-22	22-23-25
1 lb. jar - 24's	23-25-30	25-27-30	20-22-25	21½-24-30	25
Comb Honey: Cs. of 24 Sec.	$7.20-9.00-10.80			$6-7.20-9	
Retail Price:					
60 lb. can	15 20	20	15-17-22	15-17-17½	15 20
5 lb. jar	20-25-30	23-25-30	20-23-25	19-20-25	20-25-27
3 lb. jar	28-30-33⅓	26⅔-28-30	26-28-30		
2 lb. jar	30-35-37	30-32-35	27½ 32½	22½-25-28	22½-27-35
1 lb. jar	29-35-37	30-35-40	30-32-35	25-30-33	29-31-35
Honey Sales:	Fair	Fair	Fair	Fair to Good	Fair
Estimated Crop: Conditions based on normal %	65	Good	50	75	60

A few comments were as follows:

"Bees are filling up on a very intense fall honey flow."—Northern New York.

"Crop is poorest of any year in last 25 years."—Vermont.

"Fair flow coming in from goldenrod."—Ohio.

"Most areas report honey flow over."—Wisconsin.

"The drought has cut our crop 25 percent."—Nebraska.

"Bees in good condition. Have plenty of winter stores from clover and alfalfa."—Kansas.

"Alfalfa flow has helped a lot here."—Minn.

"Bees gathered plenty of winter stores from wild flowers."—S. E. Arizona.

QUEENS for '54

Write us for your early queens and package bees.

MITCHELL'S APIARIES

Bunkie, La.

B. L. M. WAXMASTER

Thermostatic controlled ALL ELECTRIC capping melter. Your light clean wax is ready for market the day you finish extracting. Safe, clean and efficient. Ready to plug in. Sizes for small and large operators. Write for information.

B. L. M. Manufacturing Co.

Lisbon, N. Y.

PROFITABLE NUTRITIOUS SANITARY

Comb Honey Produced in Our Sections

THE DEMAND IS GOOD NEVER A SURPLUS

We manufacture all the items needed to produce comb honey profitably.

Marshfield Manufacturing Company (Inc.)

Marshfield Wisconsin

See our catalog for prices on large quantities.

HONEY CANS

F. O. B. CHICAGO PRICE LIST FOR 1953 SUBJECT TO CHANGE

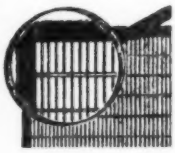
5 Lb. Cans or Pails (Specify), Packed 50 ..... $6.00 per case
10 Lb. Cans or Pails (Specify), Packed 50 ..... 8.75 per case
60 Lb. Square Cans, with Handle and 2½" Screw Cap, Packed 16 ..... 9.92 per case
Cartons for 6 10 Lb. Cans, Packed 25 ..... $4.65 per bundle
Cartons for 1 60 Lb. Can, Packed 25 ..... 4.00 per bundle

Write for Quotation on 1000 to Carload Lots
200 Other Types of Metal Containers, IMMEDIATELY!

FREUND CAN COMPANY

So. Cottage Grove (4445) Chicago 15, Ills.

Chrysler's Electric Welded All-Steel Queen Excluder



The only worthwhile Queen Excluder on the market

- Allows maximum bee passage
- Better ventilation
- More honey production
- No wood. No Burr combs
- No sharp edges to injure bees
- So durably made that it is permanently queen excluding and will last a life time.

We manufacture a full line of Bee Supplies. Order from our dealers or direct from our factory. Canadian-made goods are cheaper. No duty. Send for our price list.

W. A. Chrysler & Son
Chatham - Ontario - Canada

Western Beeswax Headquarters

Certified Beeswax Salvage Plant
Custom Rendering
Bleaching and Refining
Foundation Manufacturing
both plain and wired.
Top Cash Market for Your Beeswax

Woodrow Miller & Co.
Colton, Calif. Phone 1722

At Your Service —
with a complete line of
Root's Bee Supplies & Containers
LEON A. WINEGAR
2100 La Velle Rd., Flint 4, Mich.

Apiculture Supplies

Sensible Prices
Since 1886

Write for 1953 Catalogue

WILLIAMS BROS. MFG. CO.
5205 S. E. 82nd Avenue
Portland 66, Oregon

STOLLER'S

Frame Spacers

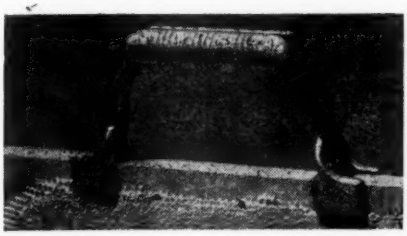
The finest thing ever offered beekeepers. See your dealer, or write

STOLLER HONEY FARMS
Latty, Ohio

THE AUSTRALASIAN BEEKEEPER

The senior beekeeping journal of the Southern Hemisphere provides a complete cover of all beekeeping topics in one of the world's largest honey producing countries. Published monthly by Pender Bros. Pty. Ltd., Box 20, P. O., Maitland, 3N. N. S. W., Australia. Subscription by Bank Draft or International M. O. 18/- (approx. $2.15) per year, post free. Sample copy free on request.

FRAME GRIP SEND NOW!



This light modern tool is for easy handling and removal of frames from the bee hive. Orders promptly filled—Satisfaction guaranteed!

$3.00 plus 30c postage fee

McCord Manufacturing Co.
Rt. 2 Box 866
San Jose, Calif.

"The Australian Bee Journal"
Published by the Victorian Apiarists' Association at the beginning of each month.
Subscription 10/-per annum plus 2/6 postage to oversea countries.
Address 112 Whitehorse Rd. Ringwood, Victoria, Australia

The Perfect Combination

Root QUALITY

BEE SUPPLIES and SERVICE from SYRACUSE

Before placing your order, be sure you have our latest catalog and price lists. Your request on a postal card will bring them to you.

Root Bee Supplies to help you produce the most honey.

Honey Containers to market your honey attractively.

Modern equipment for rendering your beeswax at reasonable prices.

We pay the highest market prices for rendered beeswax — cash or trade. We will send shipping tags — just ask for them.

A. I. Root Co. of Syracuse
1112-14 Erie Blvd., East
Syracuse 3, N. Y.

Mail Order Prices

We have available the following bee supplies which our inspectors have not passed as first line quality — these are the same as our pre-war mail order brand — slight defects in the material make these great savings possible for you.

These are Offered as "Mail Order Grade"

C 2	Full Depth Supers, 10-frame, empty, 5's, 45 lbs.	$ 8.30 per carton
C13	Shallow Supers, empty, 5's, 28 lbs.	5.20 per carton
D 2	Beeway Supers, empty, 5's, 22 lbs.	4.25 per carton
B 2	Metal Covers with Inner Covers, 5's, 51 lbs.	11.10 per carton
G 6	Standard Frames in 100's only, long top, 45 lbs.	9.95 per carton
G16	Standard Frames in 100's only, 2-piece bottom, 45 lbs.	9.95 per carton
G22	Shallow Frames in 100's only, long thin top, 25 lbs.	7.25 per carton
G26	Shallow Frames in 100's only, long thick tops, 38 lbs.	8.95 per carton
H3B	50 Sheets Imperfect "Wire-Ply", 8 x 16¾", 9 lbs.	6.95 per carton

Prices F. O. B. Medina, Ohio

Available From Medina Only

Net Cash with ORDER — No Discounts

We reserve the right to return your cash if our stock is exhausted when your order is received.

The A. I. Root Company, Medina, Ohio

Give Your Honey a Bright New Dress!

Let Root's many styles and sizes of honey labels help you in the selling of your product. A bright attractive label is your silent salesman. Get a Free Label Catalog from your Root Dealer.

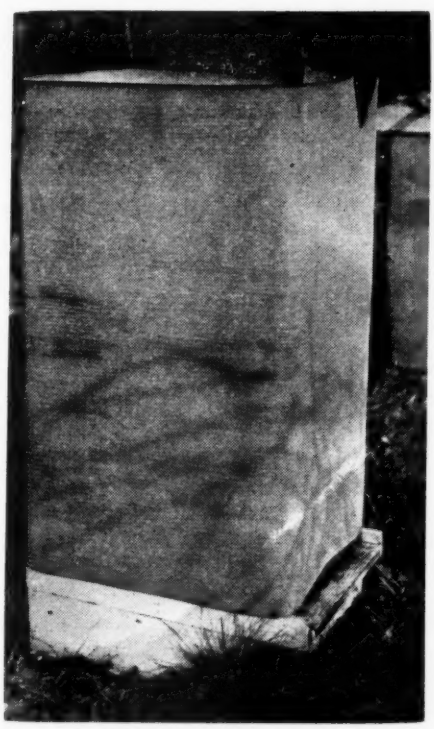
THE A. I. ROOT COMPANY
Medina, Ohio

Gleanings in Bee Culture

Created to help beekeepers succeed

It's Time to Think About Packing

By A. W. Kruse, Des Moines, Iowa



First step in packing.

FOR A NUMBER of years I have tried various methods of packing with varying degrees of success. Since our winters are normally cold with prolonged periods of low temperatures, plenty of protection in the form of insulation around and on top seems in order.

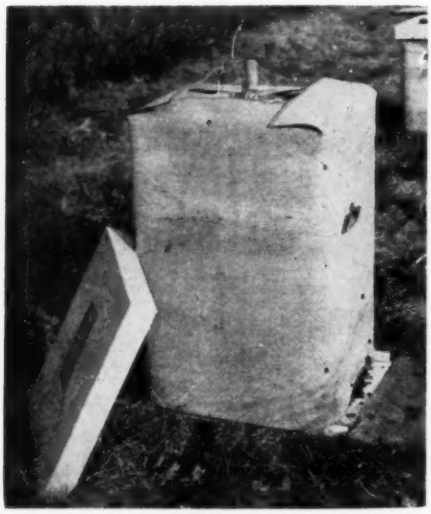
I have read numerous articles on wintering, and believe that too much packing is worse than none at all. In my mind, the important things are **top insulation, a good windbreak, plenty of stores,** and **a strong healthy colony headed by a good queen.**

Different Methods of Packing

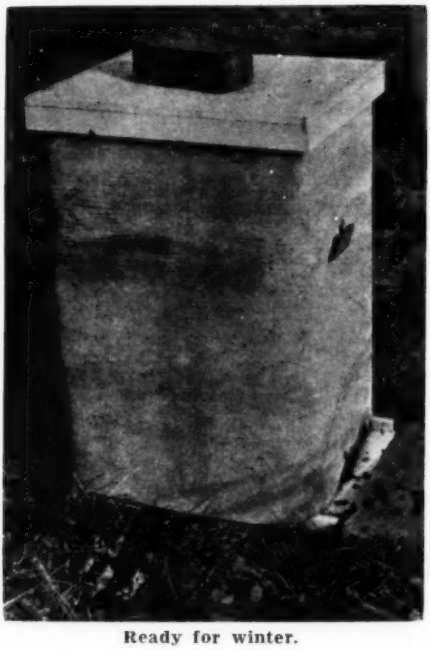
REGARDLESS of the method used, all seem to have some disadvantages. For example, cellar wintering or storing in an empty building both involve moving the bees from their summer locations, and this is no easy job for one man.

Having an empty brooder house available, I tried the latter method for a couple of years. While the results were fair to good, it is not, in my opinion, the best idea for the average backlot beekeeper.

Packing cases were given a trial, but later discarded in favor of a more



Top packing tends to reduce condensation within the hive.



Ready for winter.

simple and less expensive form of packing.

A few years ago, I started using the method illustrated here and the results have been very good. The bees seem to come through in better condition—no moldy combs or other conditions because of dampness. It is inexpensive and should be ideal for the average backlot beekeeper, particularly if a natural windbreak is available.

Preparing Colonies for Winter

IN PREPARING colonies for winter, I always make sure that sufficient stores are available for each colony for winter consumption and spring brood rearing. From 75 to 100 pounds is a good average.

The queen comes in for inspection, too. A good vigorous queen is a must if the colony is to produce next season. If the colony tapers off early on brood rearing, the queen is probably at fault or some other unsatisfactory condition exists. Early termination of brood rearing results in a lack of young bees for the winter.

Disease also comes in for close inspection—be sure to dispose of doubtful colonies. Seek the advice of your bee inspector in such instances for he can suggest the best method of handling these colonies.

Top entrances are important since they provide a beeway, proper ventilation, and allow excess moisture to escape.

I never group my hives for wintering because this usually results in drifting. A lot of "back-breaking" work is eliminated by leaving all of the colonies on their summer stands.

Method of Wrapping Colonies

A GOOD grade of black waterproof building paper is used to wrap the hives. A six-foot strip is cut and wrapped tightly around the hives and secured with a plaster lathe.

The next step is to make sure that the inner cover is not warped and fits tightly. About an inch of insulation (newspaper is good) is placed on top of the inner cover. The wrapping paper is split on each corner and folded down over the cover. The top entrance is cut through the wrapping and a small piece of slat is tacked just beneath it. The bottom entrance is screened with ¼-inch mesh hardware cloth to keep mice out.

Next, the outer cover is placed over the folded wrapping. This makes a good tight fit and keeps snow from being blown into the top. One thing I like about this method of packing....

Cornstalks are a good substitute for a natural windbreak.

inspection is made easy during early spring when the urge comes to "see how things are". I wish to point out that top insulation is important since it prevents the escape of too much heat.

Last, but not least, comes the windbreak. Since I do not have a natural windbreak, I use the cornstalks from the sweetcorn patch and from the corn I raise for chicken feed. The bundles of stalks are stacked around the hives and make a very effective windbreak. Where a natural windbreak is available the cornstalks are not necessary.

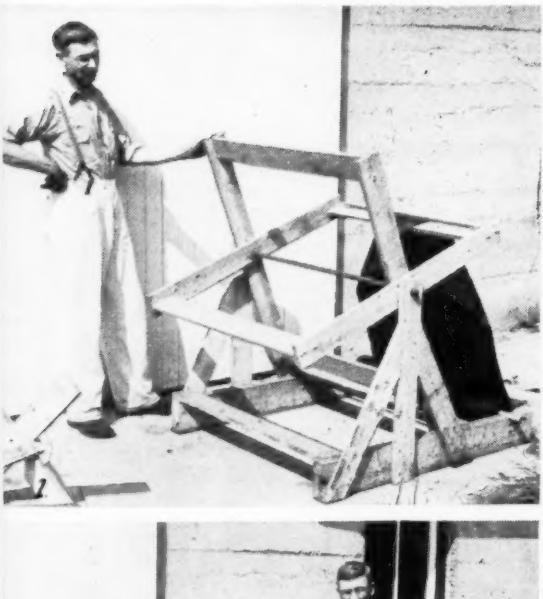
Numerous times I have noticed bees crawling around near the upper entrance when the temperature was far below the normal flying temperature . . . . the results of a good windbreak.

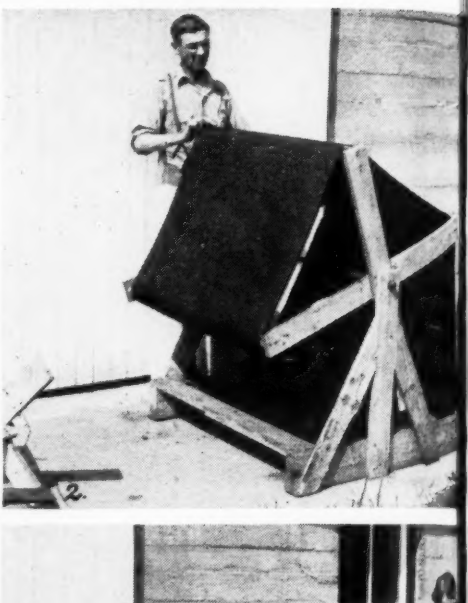
More Stingless Bees

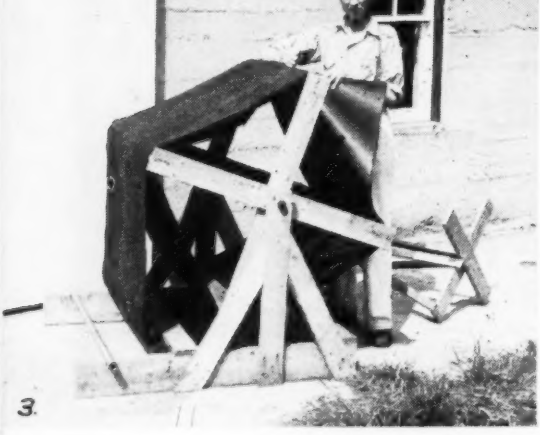
ACCORDING to a report from Chichester, England, a new strain of non-stinging bees has been produced through artificial insemination. Non-swarming is reported to be another characteristic of these bees that were developed after five years of selection.

This was recently announced by Dr. C. W. Read, chairman of the West Sussex Beekeepers' Association, who said the strain is the result of five years of painstaking work with artificially-inseminated queens. The bees, known as strain 58, were developed for use in beekeeping instruction for young children.

Wrapping Hives for Winter







"WITH ONE STROKE OF THE KNIFE.....my packing chores are eliminated", says E. A. Hogarth, commercial beekeeper of Tara, Ontario. Using the home-made device shown above, he can, with a minimum of effort, cut enough tar wraps for 21 colonies.

In the first illustration, the Ontario beekeeper is preparing to spin the "wind-mill" after attaching the end from a full roll of tar paper. Mr. Hogarth then proceeds to wrap the paper around his gadget before cutting through the material, as shown in the second and third illustrations.

After the tar paper is spun about the arms of the wind-mill, it can be easily cut. The pieces are then rolled up and taken to the apiary.

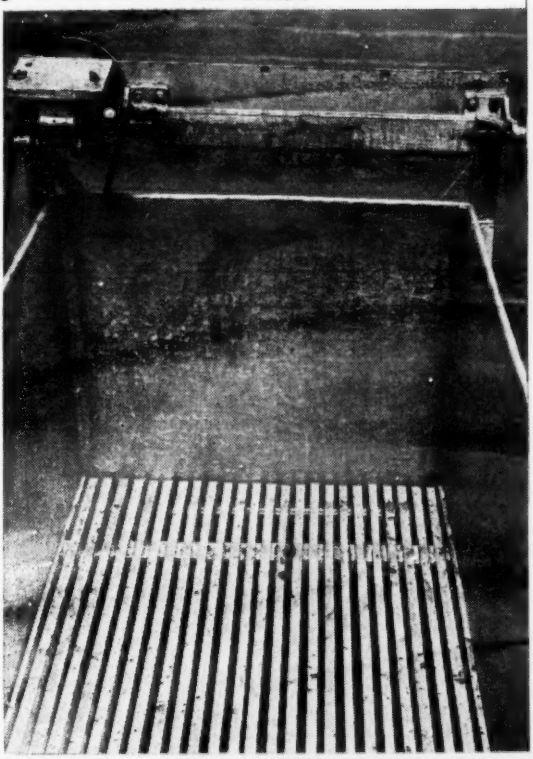
"Higher production costs made it necessary for me to look for labor saving devices", reports Mr. Hogarth. And according to the beekeeper, this economical and easy-to-build affair was one of his ways of cutting operating costs. — Photos by Richard A. Maurer.

How to Handle Cappings

By G. F. Townsend and A. Adie
Department of Apiculture, Ontario Agricultural College, Guelph

CAPPINGS ARE obtained when the waxen surface is removed from honey combs prior to extracting the honey. Where eight or nine frames are used in a 10-frame super, the combs are often drawn out far beyond the wooden frame. It is the usual practice to uncap down to the wood on the frame, with the result that as much as 25 percent of the honey crop may be included in the cappings. Considerable care must be taken in recovering this honey from the cappings in order to avoid injury to all or part of the crop.

Heat is usually required to completely separate the cappings from the honey. If the temperature is allowed to rise above the melting point of the wax (145°F.) a burnt flavor will be imparted to the honey and its color will be darkened. In addition to this injury, small globules of wax will be incorporated in the honey. These globules are almost impossible to remove, and such honey is unsuitable for bottling. Honey overheated in this manner has its market value greatly reduced and should never be mixed with good honey.



The drain box

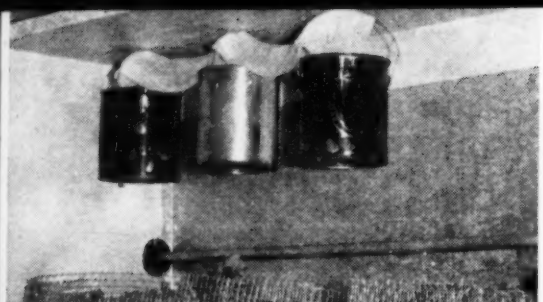
Methods of Handling Cappings

Drain Box—The drain box consists of a container with a screened or slatted wooden bottom on which the cappings drop and through which the bulk of the honey is drained off. If the cappings are stirred periodically and left to drain in a hot room over night, this method is almost as efficient as the press or whirl-dry. After draining, the cappings must be shovelled or forked into some other container for further rendering.

Capping Press—The press is a round bucket with slatted sides and bottom. The cappings drop directly into the bucket. When full, it is placed under a jack, which is tightened occasionally to squeeze the honey out of the cappings. The cappings are compressed into a cake, which eases handling.

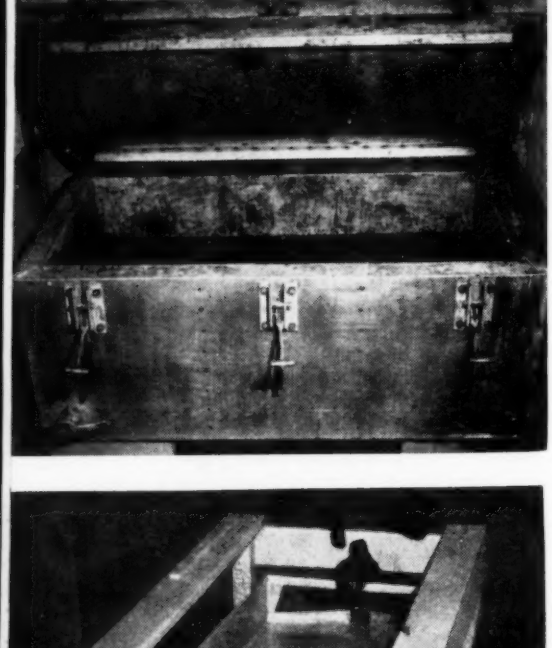
Whirl-Dry—The combs are uncap-

The whirl dry



Electrically heated chest

Steam chest



Peterson capping melter

ped directly over the revolving basket of the whirl-dry. The cappings are thrown against the wall of the basket, and the honey is forced through the perforated sides and drained off. The action is very similar to that of a honey extractor.

Brand Melter—The Brand melter is a satisfactory method by which honeycomb cappings can be handled in one operation. The combs are uncapped directly into a hopper which feeds them through into the main body of the tank. Steam heat is supplied through a grid of copper pipes near the top of the tank. The lower part of the tank is jacketed and is usually heated by steam which overflows from the copper grid. As the cappings material is warmed, the honey and cappings separate and the cappings float to the top. The floating layer will rise, as uncapping proceeds, until it comes in contact with the copper tubes, when it will begin to melt.

Under proper operating conditions the honey and the hot melted wax will be separated by a layer of unmelted cappings. To maintain this buffer layer of unmelted cappings it is necessary to keep the honey level low and to avoid excess heat on the bottom of the tank. The steam flow to the jacketed part of the melting tank should therefore be reduced or disconnected once the wax begins to run.

Saving the Honey from Drained or Pressed Cappings

THE HONEY trapped in the cappings may be saved for market or bee feed. As much as 50 percent of the weight of the drained, pressed, or whirled cappings will consist of honey.

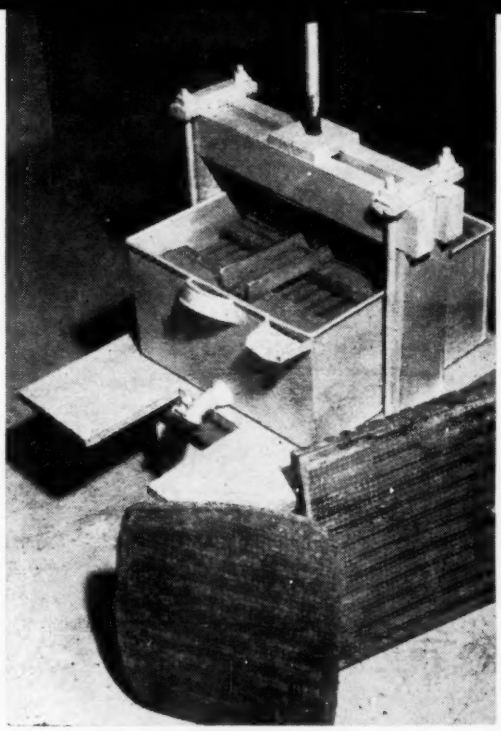
Saving the Honey for Market—The only satisfactory method of recovering this honey for market is by the use of a chest heated by other than live steam. Such a chest employing an electric blower-type heater is shown. As the cappings are heated, the honey drips through the screen baskets and is drained from the chamber before it can be damaged by the heat. Some moisture

must be provided in the heating chamber to keep the honey from drying out excessively during this treatment. After the bulk of the honey has escaped, the wax will melt sufficiently to run down to the lower tray, from which it can be scraped up and re-melted.

This is rather a slow procedure and necessitates a second handling of the wax. It should only be resorted to where the market value of the honey involved makes it feasible.

Saving the Honey for Bee Feed—If it is planned to save the honey for bee feed, the cappings may be placed directly into a steam chest or Peterson melter and melted down.

Steam Chest—The steam chest is a container into which live steam may be released in continuous flow. The cappings are supported on screens, and the wax runs to the bottom of the tank along with the condensed steam. The liquid material coming out of the chest will consist of liquid wax and a honey solution. The wax will settle out on top of the honey solution and can be dipped and poured into molds, or permitted to cool later to be removed as a wax cake. The remaining liquid will be about 40 percent sugar. It will be necessary to mix this with sugar or further honey for feeding purposes.



Wax press

Peterson Melter—This melter consists of a pan with a hot water jacket underneath. The water may be heated by steam or electricity. The pan is placed on a slope so that the honey and wax as they melt run into a separator. The honey settles to the bottom and is taken off through a baffle. The wax remains on the top and eventually solidifies. The honey is damaged by the heat and can only be used for spring feed.

Robbing the Cappings

BECAUSE OF the possibility of spreading American Foulbrood it is not good policy to permit a whole yard of bees to participate in robbing the cappings. It is better to locate a few colonies of bees near the honey house especially for this purpose. Place the cappings on a coarse-meshed screen above a platform. As the bees work over the cappings and remove the honey, the dry flakes of wax will fall through the screen and can be collected below. If this procedure is not followed, and the cappings are simply placed in a heap, the bees will be unable to completely remove the honey and many bees will be destroyed by fighting.

Colonies used for robbing cappings should all receive a feeding of sugar syrup containing sodium sulfathiazole as a preventive measure against American Foulbrood.

Discarding the Honey from Drained or Pressed Cappings

IF IT IS decided that the honey remaining in the cappings is not wanted, then the cappings should be placed in very tight containers, such as wooden boxes or metal containers, and shipped during the winter period to a rendering plant, where they will be melted down and the wax removed.

If it is desired to render these cappings at home, then they may be placed in burlap sacks and held under boiling water. It is necessary to squeeze the sack occasionally with a stick in order to make sure that most of the wax is removed. If much material remains, the sack should be placed in a wax press. The wax press is so constructed that the sack of refuse is submerged in

(Continued on page 638)

Sales Promotion of Honey Must Never Cease

By H. H. Root, Associate Editor

Since housewives buy most of their groceries by impulse, good honey sales depend a lot on attractive "eye-catching" displays such as those illustrated on these two pages. Big displays placed conspicuously at the end of the row in the supermarkets (as shown above), promote rapid turnover.

WE ARE very fortunate in this country to have so ably managed an organization as the American Honey Institute. All sorts of helps are available and the contacts made by Mrs. Harriett Grace are priceless.

The good efforts put forth by the National Federation of Beekeepers, along the line of price support and marketing, also are of great value to the industry. Their promotional work is of a very high quality and on a scale quite out of reach of what individual beekeepers can afford. All of these efforts culminate in what has now become a real institution,—National Honey Week. All should take part.

Just the Beginning

National Honey Week should mark, not the end of an effort, but the beginning. Price support and the efforts of P.M.A. may not last forever. Those who sit back and make no effort themselves, locally, are the ones who may be hardest hit. Government help, if it is the most effective, should inspire producers to help themselves.

We now know that small beekeepers pack and market 40 percent of the honey crop (see page 425 of the July Gleanings), and as long as this much of the crop is sold by smaller beekeepers they have it within their power to keep the price of honey where it should be.

Paradoxical as it may seem, the more beginner beekeepers there are, the better the demand for honey. It is almost universally true that the smaller the beekeeper, the greater the enthusiasm about honey. It is also true that beginners often sell ten times as much honey as they produce. Their infectious enthusiasm, almost without effort, creates a demand.

In a more confined place, as shown above, it is very advantageous to use posters to catch the consumers attention.—Photos by P.M.A. of the U.S. Department of Agriculture.

Here is an example of beginner enthusiasm: A young beekeeper in Pennsylvania has eight colonies of bees and a camera with which he makes the familiar 35mm color slides. He happened to give a talk in a school. Someone at the school wanted him to show these slides at a Church meeting. Someone at the Church meeting wanted him at a luncheon club and before he knew it, he was having the time of his life showing these slides and showing the wondrous story of honey. He has no trouble selling his own crop at a good price.

Let's Work Together

It is to the everlasting discredit of the American honey producers that the consumption of honey in the United States is less than two pounds per capita per year. With concerted and consistent effort, in spite of the multiplicity of syrups of all kinds, the consumption of honey can be boosted to three or even four pounds per capita.

Our government will continue its boosting campaign so long as producers do their part and cooperate in the never-ending job of telling the good news about honey.

Honey Helps Hillary

WAS ANY honey taken on the Mt. Everest expedition? The answer is supplied by Sir Edmund Hillary in the following letter to Dr. Eva Crane, Editor of the BEE WORLD:

"Thank you for your letter and your kind congratulations. I note in the Bee World a report from the Expedition Secretary which says that no honey was taken on the Expedition. As a matter of interest, no honey was included in the official food list, but I brought a 5 pound tin which was consumed at Base Camp. We also were very pleased to discover several small pots of honey left by the Swiss Expedition on the South Col, and I carried a small quantity of this to our highest camp at 27,900 feet."

According to the BRITISH BEE JOURNAL, on Hillary's return to New Zealand he was elected patron of the Auckland Beekeepers' Club and his parents life members.

Trends in Honey Packing Plants, Equipment, and Methods

By Dr. E. J. Dyce, Cornell University, Ithaca, N. Y.

[Dr. E. J. Dyce is not a newcomer to Gleanings readers but for those who do not know him, a few words on his background will show why he is now a recognized authority on honey packing.

Dr. Dyce, originator of the "Dyce process" creamed honey once served as provincial apiarist for Ontario, Canada. Later he came to the United States as Manager of the Finger Lakes Honey Coop., but it wasn't long before he was appointed professor of apiculture at Cornell University. Since then he has taken a lot of trips throughout the eastern United States and Canada to gather first-hand, the information on honey packing plants and methods to be presented here in three parts.—Editor.]

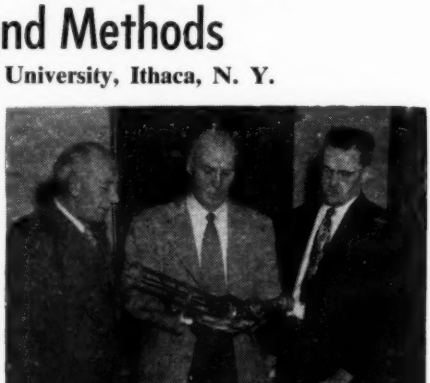
Part I

THE TREND in honey packing plants is to have all operations on the ground floor. There is no objection to a two-story building especially if it is built on the side of a hill to provide truck docks on both levels. The main point is to avoid the need for an elevator.

New honey packing plants should be constructed of fireproof materials. This will save considerable money on fire insurance. At least one honey plant in this country has paid as much as $10,000.00 a year for fire insurance. It is a two-story wooden building and most of the cartons and other inflammable materials are stored on the second floor.

It would be difficult to burn honey or packing equipment if there were no inflammable materials stored above or around them. It is much better to have a separate adjoining building for the storage of cartons and other combustible materials. An approved fireproof door should of course be installed between the buildings. It would be wise to check construction details with a local insurance company in order to take advantage of the lowest insurance rates.

One economical plan for a new packing plant building is to lay a large concrete slab on a good foundation, construct the walls of cinder or concrete blocks, and use a metal roof. Enough windows should be included to provide abundance of light, especially in the packing room. The floors should be sloped for good drainage. It is sometimes difficult to get contractors to incline the floors sufficiently for the use of good sanitary practices. Since honey is acid in reaction it is desirable to use tile or some acid-proof materials to cover the concrete floor.



The author, Dr. E. J. Dyce, examines an in-line strainer as Mr. Ed. Braun of Ottawa, Canada and Mr. Wilbur Wahl of Clayton, New York look on.

It is very important to locate a plant where receiving and shipping facilities are readily available and where help is not too difficult to secure. Abundance of good water and ample electricity (preferably 3-phase) at reasonable rates are also important.

Handling Honey

HONEY IN bulk containers is now usually liquefied in a hot room or chest which will permit the honey to continuously flow away from the heat into a holding tank. The old method of liquefying honey in a tank of hot water or in a hot room where the cans are not permitted to drain causes too much heat damage to the honey. It usually takes several hours for crystallized honey in the center of a 60-pound can to liquefy when the water or the room temperature is about 160°F. In the meantime the honey near the sides of the container is often overheated.

In hot rooms steam or electric unit heaters equipped with large fans have given good results. Motors for driving

the fans should be installed outside the hot room away from the heat. The best possible circulation of warm air around the honey containers should be the objective and it may be necessary to install baffles to bring this about.

Good air circulation will insure more rapid and even melting of honey at lower temperatures. Steam should never be injected into a hot room to liquefy honey. It not only increases the moisture content of the honey, but it may also cause heat damage to the honey.

If the plant is of one floor construction, the holding tank is located in a pit. Even if the plant consists of two or more floors it is still best to install the hot room on the ground floor. Elevators are costly and time consuming to operate. Pumping the honey to the second or third floors is less trouble and more economical than lifting it in an elevator.

Honey Pumps

WE HAVE been in the habit of criticising honey pumps and with most pumps now in operation we are justified in doing so. We now find that if pumps are in good condition and are not run too fast there is little danger of incorporating air into the honey. Few honey pumps should be run faster than 50 revolutions per minute. If the honey is unable to flow into the pump fast enough to keep it flooded with honey a vacuum will be created by the pump. When this occurs small air bubbles may be sucked in through the glands or connections of the pump and become thoroughly churned into the honey. Pumps running at excessive speeds often incorporate so much air in the honey that it is impossible to remove it even in a vacuum pan.

To determine if a honey pump is running too fast a tee should be placed in the pipe on the inlet side of the pump to permit the insertion of an inexpensive vacuum gauge. The size of the inlet pipe should be enlarged or the speed of the pump reduced if even a slight vacuum shows on the gauge. Pipes leading to and from the pump should be at least as large in diameter as the openings in the pump. Elbows, valves, and other fittings in the pipe also create considerable friction and should be avoided whenever possible. In all cases the inlet or suction pipe should be located as close as possible to the source of supply.

Positive displacement honey pumps of the rotary type are the only ones that are efficient for pumping honey. It is much better to use a large pump and turn it slowly than to use a small pump and run it too fast. Operating a pump slowly and continuously keeps the flow rate low and this in turn permits the use of smaller heating, cooling, and other plant equipment. Satisfactory speed reducers for pumps are available on the market.

Several honey packers are using glass-lined double-jacketed tanks with side agitators to hold the honey as it comes from the hot room. Some emergency method of warming the honey should be provided in case of a delay in plant operations resulting in honey crystallizing in the tank. When glass-lined tanks are not readily available some packers use ordinary tanks with coils of hot water placed either underneath or in the bottom of them to warm the honey. A removable motor-driven agitator attached to the side of a tank will provide means of keeping the honey in gentle motion. These agitators must be operated at a speed slow enough to avoid the incorporation of air.

(To be Continued)

"He claims he's a real migratory beekeeper."

Above: Clethra Alnifolia, or sweet pepper bush of New Jersey.

Right: Everyone is familiar with the Holly when used for a Yuletide decoration, but how many have seen it as it blossoms white in June? There are two sexes of the trees, the staminate or male, and the pistillate, or female. Both must be planted near each other if the pistillate tree is to bear the red berries. These are the staminate blossoms.

Honey Plants of South Jersey

By Paul Hadley, Philadelphia, Pa.

DRAW A straight line eastward across the narrowest section of the state of New Jersey, from Trenton to the sea, and you will divide the state into two almost equal parts that vary greatly in type of terrain and in the native flora. North of this imaginary line, we find typical hilly or even mountainous agricultural country, while south of this line is the famous South Jersey "mosquito country"—a low, sandy terrain risen in comparatively recent geological times from the sea bottom. Both halves of the state are important bee sections, but this article will speak only of the southern half, that served by the Philadelphia-Atlantic City area.

South Jersey, being of recent geological formation, is not as abundantly supplied with native flora as other sections. While there are comparatively few species of flowering shrubs, there is an abundance of each species. Probably the greatest producer of nectar and pollen is the sweetshrub, or sweet pepperbush (**Clethra alnifolia**) which blooms in July. This shrub is not a large one, growing only three or four feet high at the most, and having many spikes of white, fragrant blossoms that are worked industriously by bees at a season when most other flowering plants are at low ebb. The Clethra is a lover of low ground, and will be found most abundantly where it can have its roots in or near shallow water.

There are several species of wild huckleberries or blueberries in southern New Jersey, some blooming very early in the spring, while others hold off until summer with their white bell-shaped blossoms. In addition to the wild species, beekeepers benefit by the large acreages of commercial huckleberries which are raised in this part, making New Jersey the greatest producer of this fruit in the Union.

The earliest of all flowering trees and shrubs to bloom is the well-known wild cherry (**Prunus serotina**). Though this shrub is by no means restricted to New Jersey, or even to the East, it seems to grow in unusual abundance in these low, sandy lands. There are few clearings in the woods, or few roadsides, which do not have their share of the wild cherries, which bloom in May in this section. Closer to the sea coast, from the "Pine Barrens" to the actual dunes of the shore, the beach plum (**Prunus maratima**) grows in abundance. This member of the plum family is small, growing only a few feet in height, but is as attractive to bees as the other members of the prunus family.

Holly (**Ilex opaca**) grows plentifully in all of South Jersey, in some parts being the most common of all woodland trees. Holly is a prolific bloomer, it's blossoms opening white in June, and is of two "sexes" which are found upon different trees. Another native holly, the deciduous winterberry (**Ilex verticillata**) also grows to some extent, but not in the prolificness of the evergreen or "Christmas" Holly.

ONE SHRUB which grows in immense numbers in the low sandy

(Continued on page 637)

The BEES of KILIATOS

By Gordon Cotler

The ancient feud with the winged furies was more terrible than death itself

Illustrations by Victor R. Stephen

[Many stories have been written about honey bees but only a few convey the importance of the honey bee in pollination as this tale of fiction by Mr. Gordon Cotler.

"The Bees of Kiliatos" is being reprinted in Gleanings in two parts, through the courtesy of the Editors of ESQUIRE magazine. Any similarity of this story to the experiences of beekeepers living or dead is purely coincidental.—The Editors.]

MY WIFE SAID, "Darling, while you're in town today, I'd like you to pick up a few things for me," and I nodded without looking up from my paper. Suddenly an item caught my eye, and my wife and our breakfast room vanished from my consciousness. It was two short paragraphs from a wire service, on page one, filling out the column below an article I had been reading. I was attracted by the repetition of the word bees, and my eye had leaped from that to the name: George Kiliatos.

I met George Kiliatos once, three years ago, before I was married. I was spending a vacation sailing with a friend, and we were working our way down the east coast by easy stages in his 25-foot auxiliary boat. We put in one night at a small Georgia port. My friend was tired and crawled into his bunk. I was restless and a little hungry and went ashore. I explored the waterfront streets for a while and then decided to have a hamburger. It was about ten o'clock, and only one place, a diner, was open. Inside were the counterman and a lone customer hunched over a coffee cup. I sat down next to him. He was wearing dark glasses and a leather jacket buttoned to the neck, with the collar turned up. His hands, laced around the coffee cup, were gloved.

I ordered a hamburger, and the counterman put one on the grill. Almost at once, the other customer leaped to his feet and whirled toward me. "What's that?" he cried.

At first I didn't know what he meant. "That's the sound of frying hamburger," I said finally.

His tense face relaxed sufficiently to allow a wan smile. "Of course," he said. He appeared to be about thirty, a pale, wistful man. He sat down again and picked up his coffee cup with one trembling gloved hand.

There was an awkward silence. Somehow, I felt pity for him. "Nice night," I said.

"Damn hot," he said.

"The way you're dressed I'd have thought you were cold."

"I don't dress for the weather," he said in a way that discouraged further inquiry. I thought he was sick, and I changed the subject. I was determined to have someone to talk with after a long day on the boat, and he seemed in need of casual conversation. I started talking about our boat trip: where we had stopped, how the boat was holding up, how much the trip cost. He half-listened at first, but soon he was nodding and making polite remarks to hold up his end of the conversation. We talked in this manner until I finished my hamburger, and then I ordered another.

If I hadn't ordered that second hamburger I would have never heard his story. I would have left the diner believing that I had been talking with a nervous man who had a skin rash, and there is no reason he should ever again have entered my mind. But when the second hamburger went on the grill and started to sizzle, his back stiffened for an instant and he clutched the edge of the counter. He tried to pass off what was certainly a wave of fear by asking some questions about sailing. I decided to make one attempt to find out what was frightening him.

"Is there something about the sound of frying hamburgers that bothers

you?" I asked.

He looked at me, and then at his empty coffee cup. He asked softly, "Have you ever heard Cyprian bees when they are angry?"

I shook my head.

"That's the sound they make—like meat in a frying pan. Anyone who's ever kept Cyprians knows the sound."

"Do you keep bees?" I asked.

"You're curious, aren't you?" he snapped. "You want to know what's under the gloves, under these glasses. You think it might be bee stings." He tore off the glasses. The area around each eye was red and swollen, the eyes dark slits. He put the glasses back on. "Are you satisfied?"

"I'm sorry," I said, "I didn't mean to pry."

My apology put him on the defensive. "You'll have to excuse me," he mumbled. His voice had become very tired. He passed a gloved hand across his brow, "I've been living under a strain for a very long time."

I started to embroider my apology, but he dismissed what I was saying. "It's all over now," he said. "At least, it will be tomorrow. I guess I'm not used to feeling free." He turned the dark glasses toward me. "Would you care to hear a story so fantastic I don't know whether to believe it myself? I've never been able to speak of it before, I suppose because I was living it. Now that it's over, I find myself in a strange city. I know you as well as anyone here, and I think it would be good for me to tell it once."

I said that I'd very much like to hear the story.

"Very well." He drew a breath. "My name is George Kiliatos. It is a Greek name. My grandfather came to this country from the Island of Cyprus, in the 1870's. He prospered. My father, who was born here, went to college, and so did I.

"My grandfather's prosperity was due to his skill as an apiarist. On Cyprus, collecting honey was a science before the Phoenicians settled there, more than three thousand years ago. My grandfather used to boast that our family had kept bees before the domestication of the dog. Am I boring you?"

I said no.

"When my grandfather left Cyprus, his father gave him some bees, with which he formed the nuclei of his colonies in this country. These were Cyprian bees bred by the Kiliatos, and the family was proud of them, and of my grandfather, who was then the family's sole hope for keeping its name alive.

"In the nineteenth century, Cyprian bees were considered the best race for producing honey, and beekeepers used them the world over. After a time, it was discovered that they were too irritable for easy handling, and most beekeepers in this country killed off their Cyprians and started to breed gentler Italians and Caucasians. Not my grandfather. He said his Cyprians were his heritage and his only tie with his homeland. He bred other bees, but he always maintained a few colonies of Cyprians, and these were given the best attention.

"I remember, as a small child, following him about the farm as he tended the hives. He was in his late seventies by the time I was old enough to keep up with him, and absolutely fit, with leathery skin and bright eyes. He would shove honey into me at every hive, and speak rapidly in Greek. 'Eat honey, boy, if you want to grow old like your grandfather,' he would say, or 'We have always had an agreement with the bees, we Kiliatos. We provide the home and factory, they provide the honey.'

"I enjoyed these expeditions, until we would come to the Cyprians. That ominous buzz would go up before we got near them. No matter how much smoke my grandfather used, there would always be a few Cyprians loose to sting us. I cried shamelessly when I was stung, but grandfather took pride in the fierceness of his Cyprians. He would laugh and say that a sting was the mark of his profession and should be worn proudly.

"Despite his affection for them, two things about his Cyprians disturbed grandfather. First, he admitted to me that as the years went by his Cyprian colonies were becoming more difficult to manage. Bee for bee they produced more honey than any others he owned, but the honey was scarcely worth the trouble of the getting. The other de-

velopment was more disturbing. Living on the farm were my grandfather, my father and mother, my father's brother, who was a bachelor, and myself. We all had great difficulty with the Cyprians—except my mother, who was able to handle them with comparative ease. It hurt my grandfather's family pride that an outsider should be more competent than a Kiliatos with the family bees.

"Grandfather died when I was fourteen. He fell out of an apple tree, where he had no right to be at the age of eighty-five, suffered a broken hip and never recovered. He maintained to the end that he had been stung by a bee, one of his Cyprians, and that the surprise of the sting had made him lose his grip on the tree. The story was considered by the family the delirium of a dying old man whose life, from the beginning, had been built around bees. We all knew that a bee does not sting without provocation."

Kiliatos ordered another cup of coffee. "My father and my uncle assumed management of the farm and the apiary. My uncle was for killing off the Cyprians. They consumed too much time in handling and their temper made life around the farm highly uncomfortable. Before long each of us, except my mother, was making claims like my grandfather's: that we were being attacked gratuitously by the Cyprians. It was my father who prevented us from doing away with them immediately, by claiming that it would be a sacrilege to destroy what grandfather had cherished most in this world. My uncle agreed to give the Cyprians a year of grace in deference to grandfather. We wrote them off as a total loss and didn't even collect the honey.

"At the end of a year, we were eager to finish our memorial. My father, my uncle and I were a mass of welts with the stings of Cyprians. We did the job with gas one night, while the bees were all in the hives. We rather enjoyed it.

"Of course, we didn't account for all our Cyprians. In the year they had been without professional attention there had been some swarmings, and colonies had undoubtedly been set up in the surrounding countryside. We didn't expect trouble from these, but we quickly came to regret not having killed them all when we had had the opportunity. I found that I was being stung at high school, four miles from the farm. I mentioned these attacks to some of my schoolmates. They hadn't been aware of bees in any special number, and I was subjected to endless jokes about my sweet flesh. My father and uncle were stung near the eye while driving, and momentarily lost control of the car; they took to wearinging close-fitting sunglasses.

"None of us stopped to analyze the plight we were in. All we were aware of was the immediate annoyance of being stung out of all proportion to chance. It made the three of us edgy and unsociable, and affected our appetites. Several times we tried to hunt down the hives, but the wild Cyprians wouldn't enter our bee boxes. Without prisoners, we couldn't establish the necessary bee lines. If the Cyprians came near us at all, it was to sting.

"Three days after my graduation from high school, my uncle was killed in an automobile crash. Unaccountably, according to witnesses, the car he was driving swerved on a bridge, crashed through the guardrail, and fell into the river. My uncle's body was fished out an hour later. When we claimed the body we found his sunglasses in his breast pocket. He had thought it unnecessary to wear them. He was forty miles from home."

(to be continued)

Adventures in Beekeeping

By Robert D. Oglesby, Middletown, Ohio

(Continued from September)

The Second Year

IN CONTRAST to the high expectations with which the first year ended, the second year of our beekeeping, 1947, was one of disappointment.

Just after activities of the preceding year came to a close, our landlady suddenly announced she had put the house up for sale. This was at a time when, because of the Second World War, houses were scarce. We faced the possibility of having to vacate within six months. With building costs still rising we were in a predicament.

So the newly-launched bee venture had to be neglected in '47. We decided to build a cement block house on the location before described. It was started in September '46. I worked along with the workmen but by July '47 the inside was not yet done. We moved in anyhow on floors that were not sanded.

One day in March, before we had moved in, a neighbor came over with the complaint that the bees were making it impossible for them to use their porch and yard. After some discussion the neighbor admitted no one had been stung. Neither was their house any closer to the apiary than ours. It looked more like a case of fear of bees than of injury by them. I attempted to educate the neighbor and sweetened them with honey.

The following year I had it via the grapevine, the neighbor's little boy, that "Daddy caught a swarm of bees which came over the fence and is going to put them in a hive he is making in the garage!"

During a warm spell that same month a quick look at the bees showed two colonies were dead from insufficient stores. A good many others even to my inexperienced hand seemed to be light. However, I wasn't able to get to them again until April 10th. At that time I gave three hives sugar syrup in friction-top pails. This seemed a rather long, drawn-out way of doing the job.

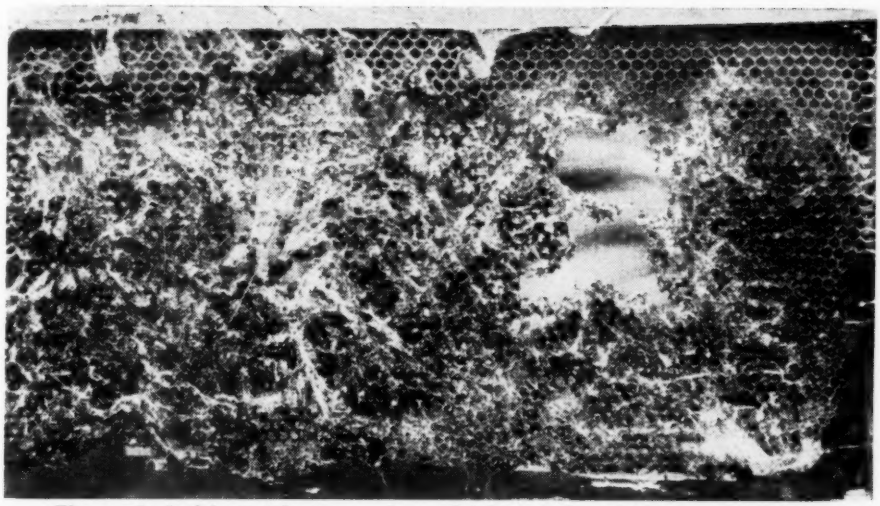
A search of bee literature turned up mention of pouring dry sugar into the hives. So I did just that. On April 18th I removed the outer and inner covers of most hives and poured dry sugar over the tops of the frames. The bees did use most of the sugar, but a better way is to make an opening in the middle of the inner cover and pour the sugar on top around the hole. Then replace the outside cover as usual.

That was the only time I ever fed the bees. If feeding is required, something is wrong. Either enough honey has not been left with them from the preceding season or the bees are of an inferior strain, or both. Feeding hides this weakness. Therefore, leave in the fall an amount of stores that you have found ample for the majority of colonies in your locality and if a few don't make the grade let them die out or requeen from a strong hive or a queen breeder. Usually, however, when this condition shows up it is a time of year when it is not practical or possible to requeen.

It will in the long run, save a lot of time and grief to let a few weak colonies die out, place the empty equipment above strong hives to be refilled and protected and finally to set them aside again with new bees and a queen. If exceptional weather conditions threaten extinction of a majority of the colonies, that is another matter, and feeding should be resorted to; but I have not found it necessary since that first year.

NEXT CAME the one-two punch that was almost a knockout. I wasn't able to get to the bees again until mid-May, at which time I found to my dismay 17 more dead colonies. The method of making new colonies the year before resulted in weak hives. They had not been able to fill up the newly drawn combs thoroughly. So, 19 of the 30 new colonies starved out. I disgustedly cleaned out the dead bees and put the tops back on.

About the end of May I went over and put a shallow super on each of the remaining live hives. It wasn't until the middle of June that I was able to get away from home building again, when I hustled over to see how much honey was in the supers and to "do



The combs had been taken care of completely and thoroughly by wax moths.

something" about those empty hives. Well, something had already been done. They had been taken care of completely and thoroughly by the wax moths. Each one, from top to bottom, was a mass of ugly, wriggling, dirty-white worms. The combs were entirely destroyed. In some, only the wires were left, draped with webs and refuse.

The rest of the summer was spent in scraping the remains from the frames and removing the wires. It all made a pile four feet in diameter and two feet high, to which I applied the torch. See what I mean in saying "place the empty equipment above strong hives to be refilled and **protected**"?

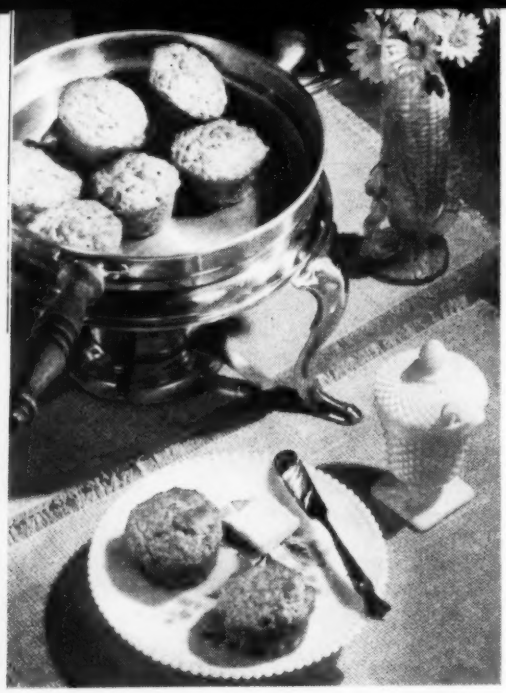
(to be continued)

New York Has a Coronation

Crowning Miss Mary Wahl as New York's Honey Queen for 1953 is Brownie Coggshall, prominent commercial beekeeper. He was chosen earlier as the states' "Beekeeper-of-the-Year". And giving her obvious approval to the whole affair is Dr. Eva Crane, Editor of the BEE WORLD.

This ceremony took place August 15 at the annual summer meeting of the Empire State Beekeepers' Association at the Genesee Valley Park near Rochester, New York.

Miss Mary Wahl of Clayton, is the daughter of Wilbur Wahl, one of New York's leading beekeepers. Mr. Coggshall is from Groton, and holds the distinction of being the first successful candidate for the "Beekeeper - of - the - Year". —Photo by Frank Lonergan.



Good Eating Ahead

By Mrs. Benj. Nielsen
Aurora, Nebraska

Honey bran muffins.—Photo courtesy Kellogg Company.

WITH THE coming of cooler weather, lagging appetites perk up. Crisp days, snappy invigorating air prod appetites and the cook's imagination as well. Honey flavors as it sweetens, and large amounts may become cloying and discourage repeats.

There's good eating ahead when you pop a ham loaf in the oven, bake or scallop some potatoes, and honey glaze thin discs of carrots. Reinforce with honey muffins or honey cinnamon bread, honey canned peaches or pears, and plenty of piping hot coffee, honey sweetened. Need I say more?

Honey Ham Loaf

Three tablespoons honey, ¼ cup brown sugar, 4 cups cornflakes, 2 eggs, slightly beaten, 1 tablespoon prepared mustard, 1 pound ground smoked ham, ½ pound ground lean pork, ½ pound ground veal, 1 cup milk, ½ teaspoon salt, and 2 tablespoons chopped green pepper.

Spread honey in bottom of 9½x5¼-inch loaf pan; sprinkle evenly with brown sugar. Crush cornflakes into coarse crumbs; combine with remaining ingredients, mixing thoroughly. Pack lightly over honey mixture. Bake in moderate oven, 350°F., about 1½ hours. Turn out, bottom up, on heated platter. Yield: 8 slices, about one inch thick.

Honey Bran Muffins

Two cups ready-to-eat bran, ½ cup honey, 1¼ cups milk, 1 egg slightly beaten, 1 cup sifted flour, 1 teaspoon soda, and ½ teaspoon salt.

Combine bran, honey, and milk; let stand until most of moisture is taken up. Stir in egg. Sift together flour, soda, and salt; add to bran mixture and stir only until combined. Fill greased muffin pans ⅔ full. Bake in moderately hot oven, 400°F., about 20 minutes. Let stand about 5 minutes before removing from pans. Yield: 12 to 15 medium muffins.

And if you would like a somewhat festive version with an added flavor fillip try

Honey Bran Upside Down Muffins

Two cups ready-to-eat bran, ½ cup honey, 1¼ cups milk, 1 egg, slightly beaten, 1 cup sifted flour, 1 teaspoon baking soda, ½ teaspoon salt, ¼ cup additional honey, and ½ cup currants.

Combine bran, honey, and milk; let stand until most of moisture is taken up. Stir in egg; sift together flour, soda and salt; add to bran mixture, stirring only until combined. Then put 1 teaspoon honey into bottom of each greased muffin cup; sprinkle with about 1 teaspoon currants. Fill two-thirds full with batter. Bake in moderately hot oven, 400 degrees, about 25 minutes. Let stand about 5 minutes before removing from pans. Serve currant side up. Yield: 12 to 15 medium muffins.

Honeyed Carrots

Cook thinly sliced carrots in a very small amount of salted water until tender. Drain. For two cups of carrots use two tablespoons of melted butter and one teaspoon honey. Pour over carrots, toss lightly, and serve at once.

Live and Learn

By Propolis Pete

LAST YEAR, about this time, I wrote about a peculiar situation, that is, a small patch of white sweet clover was blooming on my land, and was covered by every kind of bug excepting a honey bee. When that happened, my bees were doing absolutely nothing. They were just hanging out in front of the hive, even though there was plenty of room inside, and plenty of flowers blooming.

This year I can tell of a similar experience that makes that one look like a whisper. Again, at this writing, my bees are staying home in multitudes. My observation hive shows a daily loss of honey. This loss is visible, because there is a comb of honey that is being emptied mighty fast. Every day I see new cells uncapped, and the ones that were opened previously are being emptied. The queen is laying just as much as though it were spring and apparently they are using up this stored honey to rear brood.

If the dopes would only go out and look about a half mile east of here, they would find a gold mine. There is a plot of about 40 acres that has been laid out as a new development project. It is not a swank, snooty location, but is carefully designed to attract nice people, if you understand what I mean. Instead of just laying out roads and letting the weeds grow unrestrained while they are selling the lots, the owners plowed and limed it and sowed alsike clover and alfalfa. The result is a park-like area that is a deep rich green, with the pinkish white and blue of the blossoms making a very nice picture.

Now, with a dearth of nectar, to have such a pasture come into bloom, you'd think that the bees would put on a show like they do in May. But what do they do? They stay home and sulk. There is nectar in the blossoms, because every bug with a name, and some that haven't been named yet, are on those blossoms. They are getting nectar too, unless they are just sticking their tongues down into the blossoms for the fun of it. I said "every bug". I'll take that back. There are no honey bees.

The first thought is that the nectar is too deep for my bees to reach it, and they have passed the word that it isn't any use. But wouldn't you think that one or two would be sniffing around, just in case the tide changed?

THAT OBSERVATION hive that I mentioned above is just about the most useful tool that I have. I started it more for amusement than anything else, but found out that by watching it daily I could tell pretty much what was going on in the full colonies. Knowing in a general way what was going on, was a big help in timing my operations. In a small way, these bees do just about what the producing colonies will do.

Around the middle of May each year, I pick out the worst colony that I have, take the frame on which the queen is laying and put it, with the brood and adhering bees into a regular catalog-style observation hive. I figure that the queen being a dud isn't a hindrance, because she certainly can keep one frame going. This year I noticed that the queen in the producing hive was shooting blanks, and so put her in the observation hive so that I could see what happened. She continued to shoot blanks, but she laid so many eggs that the hive grew just the same. It was interesting. The brood pattern was very irregular, but the bees would clean out the cell with the dead egg, and she would lay right in it again. There would be eggs, young larvae, old larvae, emerging bees, and sealed brood, all in one little two square inch section. In a regular hive, she would not go back, but it really was interesting to see it under glass.

They have the thing so plastered together with the burr comb they have built that I'll never be able to do anything with it excepting to break it up when the bees die off, but it sure is an education to watch it over the season.

Second Glances

C.M. Isaacson

Honey sales promotion pays everybody—those who sell their crop wholesale benefit through any increased demand through a possible increase in the wholesale price (pages 521-522). There will be an organized promotion again this fall and the American Honey Institute has much material ready for use. Posters can be placed in stores, recipe books and pamphlets can be distributed. Honey and bees can be mentioned in every possible way. All in all, much can be done to make honey more of a staple food and less of a luxury item.

Beekeeping meetings can be made profitable for all, if organized so as to really make use of specialized talent and abilities, says Chas. Gouget (page 524). Of course he is right—leadership is often the big problem. There should be demonstrations and displays; speakers and subjects should be varied and timely; or to sum it up, a lot of hard work with real planning must precede all meetings if they are to be of the most benefit. It can be done.

Starting with bees always has its thrills, and usually a share of vicissitudes. Mr. Oglesby seemingly missed the latter, at least in the very beginning things seemed to go "according to plan", but he hints that a coming article will tell of not so welcome happenings. I am sure, though that the good start made him even harder to discourage and that his venture has developed well in spite of troubles (page 527). His chosen field of comb honey production needs many more devotees. More power to you, Mr. Oglesby!

The bee moth can cause serious comb damage in a short time if conditions are favorable for their development. This is especially true in the South, and in old dark brood combs (where winters are severe the damage is not apt to be extensive). The list of fumigants and methods of applying them should be kept where one can refer to them if need be. The caution at the end of Dr. Coggshall's article cannot be emphazised too strongly—several of these materials are extremely DANGEROUS, and should be handled accordingly (pages 528-530).

Swiss beekeepers love their vocation, says our correspondent from this country (page 531). This is as it should be, and I like his expression that "beekeeping is the poetry of agriculture". It is also of interest to read of the organization and efforts taken to insure a high quality of honey from Switzerland.

Drying of honey after removal from hives is both feasible and desirable in certain cases. Even in the comb, honey absorbs moisture rather easily, and if stored for some time in a damp place —or even if ripened by the bees during a period of high humidity—it may require removal of some moisture to improve its quality and especially its keeping ability. The equipment described and illustrated by Mr. Townsend is simple but efficient enough to do a good job at a fairly rapid rate (page 534). As mentioned, care should be taken not to have the temperature too high (not over 100 degrees is suggested) or combs may be injured.

Honey wines and vinegar are not difficult to make, says Roger Morse (page 536), and he gives in sufficient detail, for an amateur at least, methods that can be used. His mention that honey wines keep improving in flavor when kept is interesting, in line with a similar improvement that takes place in foods made with honey.

That first super of comb honey can be a thrill, and even if yours does have a touch of "tattle-tale-gray", I can share with you in your feeling of accomplishment, Propolis Pete. I produced a few sections purely by accident this year. Put on a last year's super of partly finished sections on a colony needing feed this spring. They cleaned it out; I forgot to take it off when putting on extracting supers and they refilled the stuff. The honey is fine but the wax is a bit tough. Let's both hope for a better grade next year, shall we?

Our Cover Picture

Attractive counter displays, as illustrated on our cover, helps to sell a lot of honey.—U.S.D.A.—P.M.A. photo.

American Honey Institute News Notes

By Harriett M. Grace, Director

HOMEMAKERS have one pertinent fact brought to their attention constantly now—Halloween is just around the corner. And that means that the lady of the house had better stock up on "treats" if she wants to forestall the "tricks".

There is something else she should stock up on. It is honey, of course. The end of October marks another important celebration, more important as far as the beekeeper is concerned, than Halloween. Remember? It's **National Honey Week!**

Yes, the last week in October is **National Honey Week,** celebrated nationally, and it will be promoted in many newspapers and magazines all over the country. How easy it will be for the beekeeper to cash in on this promotion by making sure that local grocery stores are well stocked with honey.

We're off to a good start here at the Institute office. We started with our plans for **National Honey Week** away back in March when we sent out personal letters to many of the newspapers and monthly publications that have cooperated well with us in the past. "Would you like exclusive honey recipes and pictures for **National Honey Week?"** we wanted to know.

Would they! The answers to the letters were quick to arrive. Yes, indeed, honey would have a position of prominence on their food pages in October. Would we be able to meet their deadlines, their picture specifications?

That was easy—that was our job. So throughout July, August, and September the Institute has sent out special stories on **National Honey Week.**

We knew that these publications had been cooperative in the past but yet we were amazed at the response we got. Free newspaper space like this was not too easy to get. Yet listen to these excerpts from some of the letters we received:

Said one eastern bi-monthly publication with a large circulation: "Of course we shall be delighted to run a honey story, recipe, and glossy print.. This is to send you my very warm reception of the idea and tell you that I shall do my very best to put it into practice."

From a midwest farming magazine: "We run honey material at frequent intervals....We shall be glad to see what can be done with your material."

From a New England magazine: "If possible we would like a glossy print to run with the article or recipe as we note that our readers respond quicker to pictured articles."

And we received this choice quote from an Indiana publication: "Indeed we will be glad to include something on our pages that ties in with honey, for after all we realize the importance that bees play in agriculture as well as the downright goodness of the product."

And from another midwest magazine: "Honey appears often on the pages of our magazine. Of course we will be glad to cooperate during the month of October. Honey has always been a favorite in our home. In fact, my son likes honey sundaes. If you have any prints that we could use, that would help too."

From a California publication we received this encouraging letter: "I shall be most pleased to run an article or recipe during this week....It would be well to remind me of my promise to do so, as so many requests come from all quarters and only a few can be accommodated—always those which will be genuinely useful to our subscribers ....Enclosed is a tear sheet showing an item on Honey for Breakfast Week."

This sampling of the enthusiastic response that food editors gave our offer of honey articles proved to us that our performances in the past must have been good enough to earn us this high rating now. Food editors know they can count on the American Honey Institute for good material, reliable recipes, and quick compliance with individual requests.

With this sort of cooperation, **National Honey Week** is sure to get its share of publicity during the last week in October.

(Continued on page 637)

Asked & Answered

Effect of Size of Winter Chamber

Question: Up until two years ago I used the eight-frame hive and did not practice fall feeding. I always had good success in wintering, but two years ago I changed to the Jumbo hive and began feeding sugar syrup for winter, resulting in heavy losses. What do you think causes the difference? I put the bees into their winter cases October 20. They had about six inches of leaves packed around the hive. —Michigan.

Answer: Theoretically bees should winter better in a small winter chamber than in a large one, but it is doubtful if this is the cause of your winter losses during the past two winters. Most of the winter losses are a result of conditions not quite right during the previous late summer and fall. The colonies that you lost last winter may have been made up largely of old bees, too old to survive the winter. This sometimes occurs when there is no fall honey flow and the colonies are headed by old queens. The remedy for this condition is to see that every colony has a young queen or at least a vigorous queen in late July or early August, so as to assure a sufficiently large number of young bees being reared.

* * *

Colonies Too Strong for Winter

Question: When fall comes I have four or five supers full of bees and there is not room enough for them in one hive body. I can not winter them in two hive bodies in the cellar, so last season I brushed the bees from all the supers except the lower ones and drowned them. Did I do the right thing?—South Dakota.

Answer: No. If there are too many bees for one hive body a super containing empty combs or a little honey (in many cases the last super given, which has been only partly filled) should be given to each colony when the honey is removed so that there will be room in the hive until the approach of cool weather in the fall. As cold weather approaches even these large colonies will have no difficulty in crowding into a single story, and large colonies, as a rule, winter better than small colonies.

* * *

Variations in the Markings of Italian Bees

Question: Perhaps you can enlighten me on a perplexing point regarding the color variations of Italian bees, especially as to the difference between three-bands and leather-colored. I have or have had bees of several shades. I have some showing four or five bands of light yellow, in fact, having the whole abdomen yellow except the tip. No doubt these are properly goldens. All the others show at least three bands indicating pure Italian stock but in some the bands seem deeper brown or less noticeable giving the effect of a much darker bee. Just how are these variations correctly described?—Washington.

Answer: There is considerable variation in the color markings of Italian bees. The first Italians that came to this country came from northern Italy. These bees have from two to three bands. Some of the darker Italians show only two bands where the lighter colors of the imported stock show three bands. The yellow is dark, almost brown. Bees that came originally from southern Italy are lighter in color. From these original importations of two and one-half and three-banded bees came all the varieties in the United States, influenced of course, by importations of bees from the island of Cyprus and from the Holy Land. Cyprian, Syrian and Holy Land bees are much lighter in color and as a general rule are much more nervous. The original Italians from northern Italy are usually very quiet, hardy and good workers. About twenty-five years ago there was a rage for five-banded Italian bees but it was seldom that all of the bees in a colony under that name had five yellow bands. There would be a variation of three bright yellow bands, four yellow bands and in some cases, five bands. A few of the bees would be yellow all the way to the tips. They were very beautiful and some of them fair workers, but most of these bright colored bees were inferior to the leather-colored or two and one-half yellow banded bees. Very little is heard today about the golden, five-banded bees. Beekeepers began to discover that the original leather-colored Italians, the darker strains, were better workers generally and more like the original type that come from northern Italy. It is probably true that in many and most cases, the goldens derived their color from the Cyprian or Holy Land stock. Doubtless there were some instances where the bright color was developed wholly from pure Ital-

ians. Commercial beekeepers, as a rule, prefer the leather-colored Italian stock. The attempt to breed for extra yellow almost invariably leads to a crosser bee with less energy for field work. When a queen breeder sets his mind upon raising golden-all-over Italians, he must necessarily have to lose sight of all other qualities in order to reach his goal of bright yellow to the tip. It is for this reason that the five-banded bees have all but disappeared.

* * *

Stamping Net Weight on Sections of Comb Honey

Question: In marketing comb honey for interstate shipments, would marking the minimum net weight of the sections on the outside of the shipping case answer the requirements of the law?—New York.

Answer: The Federal net weight law requires that the net weight be marked on the individual units in the case. To comply with the law when honey is shipped in interstate commerce, it is therefore necessary to mark the net weight on each section of comb honey. The net weight of the sections in a case may be marked on the outside of the case if desired, but such a mark cannot be substituted for the mark on each section. The Federal law applies only to honey shipped outside the state in which it was produced, or in the District of Columbia and other territories of the United States.

* * *

Ripened Honey Does Not Deteriorate

Question: Is the market value of honey that has been held over less than that of new honey which is sold the year it is produced?—Illinois.

Answer: Honey that is perfectly ripened and properly handled when extracted, then put into cans and sealed so that no moisture can get into the cans, does not deteriorate by being held over one season. On the other hand, honey that is a little thin is inclined to ferment slightly if held over until warm weather. Honey that ferments even slightly has its flavor impaired and of course is not worth as much as before.

* * *

Clarifying Beeswax

Question: How can beeswax be clarified and made lighter in color without impairing its purity?—Pennsylvania.

Answer: Beeswax can be clarified and made considerably lighter in color by first chopping it into small pieces not more than one and one-half or two inches in diameter, then melting it in a tank or wash boiler having a little water in the bottom. Only enough heat need be applied to bring the wax above the melting point, and when it is all melted the boiler should be set off from the fire and wrapped with blankets or packed in some other way to retain the heat. When properly wrapped it will remain liquid over night and the next morning the clean wax can be dipped off from the top, being careful not to disturb the sediment below. When most of the wax has been dipped off in this way, so that no more can be had without sediment, the remainder should be allowed to cool. The cake of wax left can then be clarified in the next batch.

* * *

Amount of Wax Required for a Pound of Honey

Question: How much wax does it require to hold a pound of honey as we find it in comb honey? Also how much honey does it take to elaborate this wax?—California.

Answer: It requires about one ounce of wax to hold a pound of honey as the comb is usually built in comb-honey sections. Of course, where full sheets of foundation are used in the sections this foundation weighs about one-seventh of an ounce, thus supplying one-seventh of the wax necessary to hold a pound of honey. The amount of honey consumed in the elaboration of wax is a question that has never been definitely settled by investigators. Some claim that it requires from 15 to 20 pounds of honey to make one pound of wax, while others estimate that only seven or eight pounds of honey are consumed for each pound of wax produced. Under some conditions the bees apparently produce wax at very little cost in honey, while under other conditions the consumption of honey in wax production appears to be enormous.

* * *

Source of Beeswax

Question: Where do bees get their wax, or, in other words, what do they make it from?—West Virginia.

Answer: Beeswax is secreted by worker bees. It comes out of the body of the bees from eight little wax pockets on the under side of the abdomen. As the secreted wax comes in contact with the air, it hardens, forming little scales of wax which the worker pulls away and molds into place in building comb.

Editorials

The Morgenthaler's Visit U. S. Dr. Otto Morgenthaler can be considered one of the most distinquished beekeeping visitors we have had in the United States for a number of years. Probably no one is better known in beekeeping circles in Europe than Dr. Morgenthaler.

For many years Dr. Morgenthaler headed the federal Bee Research Laboratory at Liebefeld, Berne, Switzerland. This is one of the best equipped and staffed bee research laboratories any place in the world. Many of its scientific reports have appeared in the Schweizerische Bienen-Zeitung, a Swiss publication of great merit and with a decided leaning toward the scientific aspects of beekeeping. For a number of years Dr. Morgenthaler was editor of this journal.

Although Dr. Morgenthaler has conducted research experiments in the overall field of beekeeping, his particular specialty has been the study of diseases of bees. He is well known in this field throughout Europe as well as in the United States. Almost from the time Dr. Morgenthaler started his beekeeping work in Switzerland he has published an annual report covering the bee disease situation throughout Switzerland. Perhaps no other country has a better or more intimate knowledge of its own bee disease problems.

In this connection it might be of interest to American beekeepers to learn that Dr. Morgenthaler feels that we are fully justified, for the time being, in prohibiting the importation of honey bees into the United States. He considers **Acarapis woodi**, the parasitic mite of honey bees and the cause of the so-called Isle of Wight disease, as by far the most serious bee disease problem confronting European beekeepers. Dr. Morgenthaler thinks we are indeed fortunate to have escaped this malady.

Dr. Morgenthaler is a recognized ambassador of good will to the beekeepers in all European countries. There are few important beekeeping conferences called on the Continent to which Dr. Morgenthaler is not invited. He has the respect and confidence of all beekeepers irrespective of country or language. He is an unassuming and gracious man. He left a lasting impression with beekeepers in the United States who were fortunate enough to meet him.

Mrs. Morgenthaler should not be left out. She knows the beekeepers about as well as her husband does. She has helped on many of his projects. The Morgenthalers because of their length of service (he was recently retired) and their mingling with beekeepers in Europe and now the United States know personally more beekeepers than any one we can think of.

●

What is Happening to Our Bee Pasture? Here is a question that arouses considerable discussion at beekeeping meetings, for the situation is becoming more serious every year. Many beekeepers blame the soil or the fact that the hay is being cut too rapidly, but we recently picked up some ideas that might be the true cause of it all.

The manufacturing boom resulting from the "Cold War" and the Korean War, has caused a large migration from the farm to the factory. Good farm areas near cities have been taken over by the swollen industrial areas, and large housing developments have mushroomed up where pastures and hay fields of clover once reigned supreme.

If this was the big loss of bee pasture to beekeepers it wouldn't be too serious, but the effect of the manufacturing boom is felt much further in the agricultural areas. Many people don't want to live in the housing areas so they buy portions from large farms

which they then convert into small farms. These part-time farmers substitute cash crops like beans, tomatoes, potatoes, etc., for legumes because they do not have time to care for a dairy.

This tragic situation is carried further when full-time farmers are attracted to the city industries by the high wages. The full-time farmer sells his dairy herd and lets the pastures and hay fields lay idle, with the result that weeds soon crowd out the clovers. Some of the land may still be farmed but it generally goes the way of "cash-crop farming".

On the other hand, agricultural scientists have been giving a lot of attention to improving the yields of hay and pasture legumes. But doesn't it seem logical, that in breeding for higher yields the plant specialists overlooked the nectar secreting ability? The net result could be new sweet clover, alfalfa, and other clovers with a poor ability to secrete nectar. This probably is the case in the buckwheat regions of New York and Pennsylvania where buckwheat is no longer a reliable honey plant.

●

Be Your Own Inspector Many states do not have the necessary funds to employ sufficient inspectors so that apiaries can have an annual inspection. Therefore part of the responsibility of controlling American foulbrood falls upon the beekeeper.

Carrying out this idea is the Pennsylvania Department of Agriculture which recently issued Circular 119, "The Control of Brood Diseases of the Honeybee". This leaflet encourages beekeepers to become their own inspector.

When should you inspect for disease? The Pennsylvania specialists supplied the answer. Inspections should be made (1) when the hives are first opened in the spring; (2) inspect again when putting on supers prior to the honey flow; (3) after the honey is taken off; and (4) when the hives are prepared for winter.

Of course, it goes without saying, that movable-frame hives are necessary if colonies are to be examined for disease, swarm control, or other manipulations. Pennsylvania joins with most states in making it mandatory to keep bees in movable-frame hives. Box hives are illegal in these areas.

●

Honey Shows We were very pleased to learn that a group of progressive members of the beekeeping industry had organized America's first National Honey Show. It was held August 29 through September 1 at the Minnesota State Fair.

Planned ahead of the 1953 marketing season, the Honey Show was designed to attract national attention to honey just as the crop would be going to market. Even though the honey crop may be below average this year, such advertising is necessary to maintain a stable demand for honey.

Credit also goes to the British Beekeepers' Association who sponsored a National Honey Show in London in October. The program for their show was the most inclusive one ever seen by your Editors. Besides the usual entries for different forms of honey, and beeswax, and honey cakes, there were awards for honey vinegar and mead.

●

Gleanings Visits Ontario When Dr. E. J. Dyce of Cornell University asked Walter Barth, Assistant Editor of Gleanings, to travel with him through Ontario, Canada, the invitation was immediately accepted. This tour gave Gleanings an opportunity to make friends with some of Canada's progressive beekeepers and at the same time a chance to study their methods.

It was immediately obvious from this trip, that the Ontario beekeepers were doing a better job of handling and marketing their honey than some beekeepers to the south.

The Canadians use more modern equipment to prepare their product for market. Gone is the dirty honey house, the cheese-cloth honey strainer, and slovenly packing methods. In its place is neatness and modern honey handling equipment, such as hot rooms, baffle tanks to settling cappings out of the honey, O.A.C. strainers, and flash pasteurizers, to name but a few. And then they put up a handsome pack, and go out and sell it.

Some of the beemen visited during this Ontario tour were C. M. Johnson, Niagara Falls; Dyment Brothers, Smithville; C. B. Sitter, Fisherville; O. W. Krouse, Guelph; Irwin Hogarth, Tara; Robert Maguire, Minesing, and Kenneth Wells of Coldwater.

Stops were also made at the Department of Apiculture at the Ontario Agricultural College, Guelph, Ontario. Unfortunately for Gleanings, Dr. G. F. Townsend was away on vacation but Phil Burke, A. Adie, and others proved to be very amiable hosts.

Just before returning to Medina a trip was made to the Ontario Honey Producers' Co-op. at Toronto, Ontario. Mr. Tom Shield, General Manager of the Co-op., took the picture-taking American visitors on a tour of his plant—and they loved it.

●

When is Moisture Bad for Bees? Your Editor came upon a letter written by the late Dr. E. F. Phillips that deals with the problem of moisture in beehives. And the following comments, a few excerpts from this letter, might throw some light on this situation:

"Moisture in the hive in winter is only to a slight degree detrimental to bees, but the conditions that permit production of moisture cause heavy damage. Only when moisture in the hive atmosphere almost reaches saturation is there any adverse reaction on the part of the bees. This is due to the following situation: As bees consume their food, the final products produced are carbon dioxide and water vapor, both of which are normally eliminated from the bodies of the bees through their respiration. If the atmosphere of the hive is virtually saturated, then as more moisture is produced by food consumption, the hive atmosphere cannot take it up. In that case, the moisture is retained in the blood of the bee and is then secreted into the hind intestine (rectal ampulla). This secreted moisture is then added to the feces accumulated in the hind intestine, and the condition known to beekeepers as dysentery is aggravated."

"If there is a rise of temperature, then the capacity of the hive atmosphere to hold moisture is increased, and as a result the relative humidity is lowered. Any scheme whereby the temperature of the hive atmosphere is raised will tend to reduce accumulated moisture or to eliminate it."

"Moisture in the hive then becomes a symptom, not a cause of trouble. Except the aggravation of dysentery due to a saturated atmosphere, the moisture in the hive is harmless (distilled water)."

"Bees give off considerable water vapor in the course of a winter, sometimes amounting to a gallon of condensed water, or in poor conditions even more than that."

●

More Tri-State Meetings Needed The success of the Tri-state meetings at Hamilton, Ill. and Angola, Ind. indicates the need for meetings of this kind. The pooling of funds and talent resulted in a better program that was filled with experienced and entertaining speakers.

While the two meetings mentioned above were honored by the presence of Dr. Eva Crane and Dr. Otto Morganthaler, there is no need to wait for special guests before calling a tri-state meeting. In some areas a tri-state meeting would be impractical because of geographic conditions but it may still be feasible for two states to get together. We understand that this idea is practiced very successfully in New England where Vermont and New Hampshire frequently get together.

Joint state meetings offer the opportunity for a lot of free publicity. Newspapers generally give more attention to meetings when a large group is in attendance. A promotional team for the different beekeeping associations can really capitalize on this situation.

Mr. Kenneth F. Hazard of Highland Park, Michigan, did an excellent promotional job for his state Honey Queen at the recent Tri-state meeting at Angola, Indiana. In 1952 he handled the Michigan State Honey Queen promotion that gave Michigan beekeepers free advertising valued at $11,775. Other associations throughout the country should consider Mr. Hazard's idea of state competition for a National Honey Queen. We need the publicity and here is the chance to get it free.

From North, East, West, and South

NORTHERN CALIFORNIA, Sept. 1

Weather: No rain in the lower elevations this past month. The temperature has been normal during the daytime and on the cool side at night, at least in this vicinity. I had the pleasure of a restful trip of a week in the mountains and northern portion of the state, including Lake Tahoe and Lassen Park and then over to the coast and down through the redwoods. The weather was warm during the day but cool to cold at night. Even fog on the coast was a delightful change. A thunder and lightning storm produced little rain but more than 300 forest fires. The forests are dry and some good soaking rains would relieve the fire hazard.

Condition of Plants: The honey flow is practically over and bees are killing their drones and robbing in this area, although some colonies are making small gains when located near fields of late alfalfa, or some late star thistle or stands of tarweed.

Condition of Colonies: As a general rule, colonies are in excellent condition for the winter. Colonies in our apiaries have brood in from 8 to 12 combs, with honey around the brood and plenty of pollen. We always leave the second story full of honey and reduce the number of stories to two in time for the bees to fill some of the brood combs in the lower hive body. Our second-year sulfa colonies have remained clean throughout the entire year without being fed any sulfathiazole. To reduce the amount of work involved, the colonies were doubled up at the beginning of the honey flow. The strong colonies rewarded us with from two to four supers of honey—which seemed a whole lot better to us than the ashes they might have been had they been destroyed.

Honey Crop: The amount of the honey harvested this summer is somewhat spotted. Some beekeepers report no more than 30 pounds where the colonies were concentrated in legume seed fields for seed production. Some who maintained their colonies for honey production alone, report from 60 to 90 pounds per colony. The quality is generally good unless the bees were located within reach of large acreages of safflower. Honey from this plant is light amber on the yellowish side, has at first a disagreeable odor and a rather bad taste. The aroma decreases with time and although the taste improves, it tends to lower the quality of good table honey from star thistle or the clovers.

The Honey Market: Buyers at present are offering from 10¾ to 12 cents at the producer's warehouse, depending on the quality and how badly they need the honey to supply their trade. There is practically no sage, orange blossom, or California buckwheat available at this time as these sources produced very little honey this year. It looks as if the California market will be cleaned up well in advance of last year.

Spray Poisoning: Our colonies were injured by TEPP applied to English walnuts during the middle part of the day on two occasions in August. Fortunately, the loss of bees was not too serious this time. Several beekeepers have reported their colonies injured by dieldrin and aldrin applied to different crops. The restrictions on the application of systox in some of the cotton areas have been relaxed and this pesticide is now allowed to be applied to cotton at any time. In the same communication, a warning is included against the application of sprays or dusts of poisonous materials to crops on which bees are working. Permits are required (in Kern County as well as in many others in California) to apply injurious materials, and a notice must be filed with the County Agricultural Commissioner 48 hours in advance of intention to apply such materials after the permit is granted. This gives the operator and the County Commissioner an opportunity to notify registered beekeepers with apiaries in the vicinity of the fields to be treated.

County Fairs: I recently had the

B & Z Library

pleasure of judging the honey exhibits and honey baked goods and candies at the Mother Lode Fair, Sonora, and the exhibits were outstanding in two particulars; first, Mrs. Ellen Gustafson had entered the best Honey Brownies I have ever judged at a fair and she was awarded a special green ribbon of merit for her entry; second, Mr. Graff who takes special pride in the quality of his honey, exhibited a sample of honey from Scotch Broom. It was water white, clear and beautiful to look at. It was also mild and pleasant in flavor. He was awarded a green ribbon of special merit for this entry. If more beekeepers would take more time in the selection of their samples of honey and in preparing them for exhibit purposes, more people would take an interest in the product. As soon as I can find a little time, I want to give the readers of this column Mrs. Gustafson's recipe for Honey Brownies and also describe how Mr. Graff prepares his honey for exhibit purposes. I am sorry that both entries were not entered in the Minnesota Honey Exhibit this month.—J. E. Eckert, University of California, Davis.

* * *

TEXAS, September 5

Weather: The temperature during August remained about normal. Rainfall generally deficient over Texas for more than two years reversed its trend with the return of heavy rains throughout the State. While flooding occurred in many south and southwest portions there was rejoicing everywhere to see the drouth broken, and prospects for more rain where it is still needed.

Bees, Plants, and Honey Crop: While the rainfall came too late in the season to materially affect the year's honey crop, vegetation has been rejuvenated and fall-flowering plants are in excellent condition. Asters along the upper gulf coastal region, kinnikinnick in the hill country of the southwest area, and broomweed over a large portion of the State are coming into bloom with better prospects for fall supplies of nectar and pollen for winter stores than we have had in some years. Bees are working with renewed spirit as in the spring. The year's honey harvest has been largely completed; however, cotton is still yielding in northern sections, and the yield from this source promises to be larger than in recent years. Sweet clover yielded rather sparingly, particularly in North Texas where the plants dried up during the drouth. The yield from cotton will partly overcome the short crop from sweet clover, but the year's total production over Texas likely will remain below normal.

Market: Movement of honey in the retail market has been slow during most of the summer season. Prices remain unchanged. Some markets report recent improvement in consumer demand and expect continued better movement from now on. Comb honey remains in short supply.

Miscellaneous: As the harvest season draws to a close producers will be free to devote more effort to market their crop. A short crop or the fact that the crop has already been marketed is no good reason for relaxing one's effort in advertising his product. Some of our beekeepers are doing a good job in advertising honey through local newspapers and radio stations with material expansion in volume of sales. Whatever success may be attained by individual effort, much more can be accomplished by combined effort of members of an organization.

With approach of the fall season local and state fairs offer an excellent opportunity for bringing honey and bees to public attention. The marketing committee of the Texas Beekeepers' Association has completed plans for exhibits at the State Fair at Dallas beginning the second week in October. Arrangements have also been completed for observing National Honey Week at local levels during the last week in October. Publicity will be given through local newspapers in 43 counties in Texas. In 75 of the larger cities honey will be given special display in the food markets. Help and support by a large number of producers is needed to make these events pay off. Beekeepers are urged to join and support their local and state associations.

The annual meeting of the Texas Beekeepers' Association will be held at College Station on October 26 and 27. Further notice relative to this meeting will appear elsewhere in this issue.—A. H. Alex, College Station, Texas.

* * *

IOWA, September 4

The season of 1953, now closing, will be remembered as an unusual season. The beekeeper has been delayed by unusual conditions from the beginning of the season. Colony management has been much more difficult at all times, through and including difficulty in requeening. Even supering has been difficult to meet the abnormal flow conditions. The flow has been very slow throughout the season but has extended over a longer period than is normal. The total crop would seem to indicate about 50 percent of a normal crop.

At this time, colony conditions are considered as good since the flow has been favorable for the late rearing of bees and ample amounts to provide a favorable winter population.

Honey plant conditions are of concern. It is reported that legume seedings have suffered materially by the drought of late August and early September. Alfalfa has been hard hit in some sections. Red clover is likewise hard hit over extensive areas while sweet clover has been able to withstand the drought better and is considered in fair condition. It is interesting that an unusual amount of damage by leafhoppers has been experienced in all of these plants.

The Iowa State Fair has come and gone. This year the interest on the part of beekeepers has increased as is evidenced by the number of entries and the quality of the entries. Beekeepers who have taken an opportunity to contact the crowd realize the public interest in bees and in honey. This is a wonderful opportunity to popularize the use of honey by the consuming public.

The beekeepers of Iowa, working through their association, are cooperating with the Food Inspection Department relative to honey-house sanitation. Individual beekeepers are already remodeling their honey houses so that they may qualify for clearance by the inspectors when that service is undertaken in the near future. It must be admitted that honey is an article of food and as such should receive the best possible sanitary treatment.

The Annual Meeting of the Iowa Beekeepers' Association has been set for November 17 and 18. Details of the program are now being developed. The beekeepers of Iowa are expected to follow through with the co-ordination of the program set up for honey promotion. The cooperating agencies in Iowa are the Iowa Beekeepers' Association, the Iowa State College through its several facilities of publicity such as newspaper releases, radio, and TV releases. The mats which were developed by the Association last year are being made available this year for beekeepers upon request. This should be a wonderful opportunity for beekeepers to develop a very profitable local program of honey sales.—F. B. Paddock, Ames, Iowa.

* * *

MINNESOTA, Sept. 9

Weather: In the Minnesota report for May we said: "There is some concern about whether or not we get sufficient rains to bring on luxuriant plant life". Well, we got the rains, more than anticipated, and too much at times. In fact, the bees were quarantined to their hives for about ten days right in the middle of the main honey flow. During this period the bees uncapped honey for brood feeding. But the rains ceased and today the ground is cracked with dryness.

Crop: At this writing it is a little early to arrive at an accurate estimate of the important Minnesota honey crop, but from our information it looks like about a 75 to 85 percent of what would be called an "average crop". Here again we might point out that northern regions that used to consider an average crop of 125 or more

pounds per colony, of recent years have reduced this to 100 pounds per colony.

The beekeeper, the weather, the pasturage, and other factors, all combine to determine the size of the crop. This year the weather seemed to be the bottleneck that ultimately meant a smaller average per-colony crop. Not only did the weather keep bees shut in so much of the time but it worked for increased swarming, which lowers the crop also, as every beekeeper knows. Reports from the southern and southeastern sections of our State indicate about two-thirds of last year's crop.

One of the results of our wet honey-gathering season was the luxuriant Dutch clover in pastures. Naturally, a considerable portion of the crop is made up of this fine light honey.

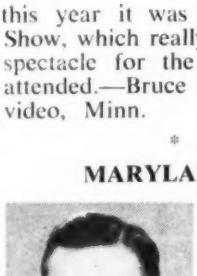
Package Bees: Earlier in the summer some beekeepers were complaining that their package bees were going to make a very poor showing this year. However, later reports from others showed that when packages were carefully stimulated they came through with satisfactory returns. While it is certainly true there are various risks n beekeeping, sometimes we wonder if the most unpredictable element might be the human element.

Summer Meeting: As usual the Detroit Lakes summer meeting was well attended and a success. The weather was fine, the talks by prominent specialists in various phases of beekeeping and allied interests were instructive and helpful. The comradeship of common interests lent an atmosphere of friendliness and good feeling. Association officers were not elected at this meeting but other business was transacted which could have far-reaching results. The Promotion Committee has all details arranged to complete the setting up of a Minnesota Honey Council within the State Association. Also, work is proceeding in the matter of honey grades. Most of our Minnesota honey is so light that we have not needed to grade it carefully. Now it is felt that even our light honey should be graded.

National Honey Show: The first National Honey Show was held August 29 to September 7 in conjunction with the Minnesota State Fair. The exhibit at our Fair is "something to see", and this year it was augumented by the Show, which really made an interesting spectacle for the 860 thousands who attended.—Bruce Morehouse, Montevideo, Minn.

* * *

MARYLAND, Aug. 25



Weather: There has been but little suitable honey flow weather in this central mountain section of Maryland since May. The crop is from one-half to two-thirds of last year's. We blame the weather, a combination of off-days of cold when warm weather should prevail, excessive rain when it was not needed and no rain whatever when it was desperately needed on sunbaked fields.

Goldenrod and fall aster will probably dry up and disappear in the present six weeks drouth and heat, if rain does not come soon. Brood nests are reported full, egg laying curtailed, and no fall extracting contemplated. The bad effect a lack of nectar will have on wintering and spring brood rearing is too well known. None of us wants to feed sugar if we can possibly avoid it.

Marketing: Our honey is generally dark but in taste and aroma it is tops. It goes to diabetic patients whose doctors order it for them in 50-pound lots; to friends who do a lot of trailer travel, and to a few who sail the deep and like honey as the main sweetening in place of sugar. These customers make you glad you made a nice crop. And selling honey in this fashion seems so much more businesslike than peddling it hither and yon worrying people with one-pound jars for 35c. Too many of our Maryland beekeepers give their crop away, anyhow. Our customers don't care whether its this year's or last year's crop, so long as they know it is ours.

We still price our honey at 30c net, in ten-pound cans only, charge for the can or have it returned, and add on postage and insurance. Thus we have decided that since we have been recognized as purveyors of a choice article —we use no sugar, no sulfa, no car-

bolic acid, no oily smoke, no cooking of our honey—we shall maintain a price that pays a little for our trouble.

Honey in general in the Maryland market moves slowly. With the advent of cooler fall weather, if and when it comes, the market will appreciably strengthen and the stocks will move into trade, most of it to consumers, but some of it to manufacturing users.

Fairs: All of the seven Maryland fairs this year have had or will have good honey exhibits. Two thousand dollars in premiums will be offered, and additional money at the Winter Show as well. This latter will take place this year in January in Baltimore at the time of our big National Convention, when Maryland beekeepers will be hosts to their comrades of the smoker and veil from all over the nation. The State Association is already shaping plans for this event and committees are working.

Many of us are again planning to attend and exhibit at the National Flower and Garden Show in Washington, D. C. come next March. This is the event at which a quarter of a million or more people come to see flower and honey exhibits and take home a pot of geraniums in one hand and a two-pound jar of prime Maryland honey in the other.

Some Things to Think About: 1. One and a half million Americans live in or go traveling often in trailers. Honey is a food they can carry along. It never spoils; its just as good in summer as in winter. Trailer house-keepers should know more about it. Maybe here is another market.

2. Honey doesn't sell readily off the store shelf. It has to be out front on display. See if your grocer can't put yours out. He'll sell more; and so will you.

3. This writer circulates around among a group of beekeepers who make from three supers of comb honey "for taxes" to six tons for the general market, and for our section of the country six tons is a lot of honey. I think many of them keep bees because they love the critters; not because they like the bee business. They have a grand product and as time goes on and more and more people come to believe in the need for a family diet based on simple, organic foods to promote health—of which honey is one such—and turn away from the lifeless, manufactured stuffs cluttering cupboard shelves, more and more honey will be used in the home. One of our customers who takes 50 pounds at a time and uses it in her cooking as well, says, "I can just eat it with a spoon." —S. W. Edwards, Myersville, Md.

* * *

GEORGIA, Sept. 5

Honey Crop: To date, the total honey crop in Georgia is less than normal, especially all spring honey flows. Spring crops of black gum, tupelo, holly, and gallberry were short in south Georgia, or the Coastal Plains section. Poplar, Dixie crimson clover, and other spring honey flows in middle Georgia, or Piedmont section, were very short, and poplar was almost a failure. Poplar, locust, basswood, and sourwood flows in North Georgia, or the moutain section, were short, especially the sourwood flow. A number of beekeepers in middle and north Georgia report they did not take off any spring honey.

Flow: The summer and fall honey flows over Georgia are normal and above normal in some sections of south Georgia. Bees have two more months to work.

Prices: Most of the fancy chunk comb honey in south Georgia and middle Georgia has been sold or contracted. There was not enough sourwood made in north Georgia to supply the demand. Only a small volume of the extracted honey crop has been placed under the government loan. Although the total spring crop was less than last year and the demand is better for a fancy grade of honey, the over-all price has not increased. Most of the chunk comb, packed in 2½ and 5 pounds sold for around $6.50 net to the beekeeper. The spring demand for package bees and queens was some better than last year, while the demand for fall queens to date is less than last year. Beeswax is selling for around 40 cents; however, most of the beekeepers will need all the beeswax they have to trade in for surplus comb foundation. Rainfall in the mountain section to date is light, normal in middle Georgia, and above normal in south Georgia.—A. V. Dowling, Valdosta, Ga.

INDIANA, Sept. 1

The weather, according to reports, seems to have had a very decided adverse influence on our state's honey crop this year and a yield quite below average has been produced. The early summer started with plenty of moisture in the ground due to the spring rains and with nectar sources apparently in the best of condition. After two or three weeks of below normal temperatures in the late spring, colonies built up quite well in time for the nectar flow in early June. Supply dealers were finding it difficult to keep an adequate supply of materials on hand for the unexpected heavy demand, supers and especially foundation. In this connection, beekeepers would do well to order supplies well in advance of an expected nectar flow and thus avoid the disappointment in the loss of the many pounds of honey which might be gathered if plenty of super space was provided at the beginning of a flow—at the right time. Lack of room in the hive could result in the loss of most of the crop if the colony clogs the brood nest with nectar which should go into supers if these were provided—at the right time.

The honey flow stopped quite abruptly during the early part of June and the flow has been quite erratic, according to reports, throughout the summer. A few sections of the state report fair flows and have a fair crop of very good quality honey, both in sections and extracted. However, sections where fair crops of honey were reported are spotted over various parts of the state. The counties in the northern half seem to have fared better than most of the counties farther to the south and though the quantity is smaller, the quality is good. Sources of the nectar were yellow sweet clover, alsike, alfalfa, and some white clover. Dry weather seems to have affected the nectar secretion from white sweet clover so that this plant produced only a minimum of nectar.

In south central Indiana, one beekeeper reports an excellent flow from blue vine, the heaviest in years, and quite a good flow from sweet and other clovers. He reports both bees and plants in good condition with prospects for an excellent fall crop.

The extreme southeastern part of the state reports a poor crop, but of good quality, from yellow sweet clover, white clover, and alsike. Not much honey from white sweet clover, possibly because of adverse temperature conditions at the time this plant was in bloom.

Southwestern Indiana seems to have fared quite poorly throughout the summer, because of extreme dry weather, and with very little prospect for a fall crop.

Generally, reports indicate a lower-than-average crop of honey throughout the state as a whole, the counties in the north half having had more frequent rains and somewhat better crops than counties to the south.

Miscellaneous: We are now at the Indiana State Fair in Indianapolis (September 3rd to 11th), and have many interested visitors in the Apiary Section where some fine exhibits of honey are on display. These exhibits give our beekeepers a wonderful opportunity to show and advertise their product to the public and we hope that more of our beekeepers will avail themselves of this opportunity to help not only themselves, but the whole beekeeping industry in general, make the public more honey conscious, and increase the demand for honey as a necessity instead of a luxury. Many recipes promoting the use of honey have been handed out to interested women by members of our beekeepers' association auxiliary, "The Hoosier Honeys", with the advice to write the American Honey Institute for any other desired information regarding the use and promotion of honey, especially during Honey Week.

National Honey Week will be October 26th to 31st inclusive and this event affords another opportunity for beekeepers to do their part by talking about the goodness of honey to club, church, and school groups and to get any possible newspaper and radio publicity which these various activities afford. — Walter R. Bielfield. Terre Haute, Indiana.

SOUTH CAROLINA, Sept. 10

Weather: Beekeepers in this section of the United States are not filled with enthusiasm over the crop of honey harvested this summer. For the most part dry weather has caused a lack of nectar in practically all honey plants this year.

Bees are being moved from the mountains at present or have already been moved. These bees were moved up for the sourwood honey crop which was very disappointing because of a lack of moisture in the soil.

Recent rains have covered most of the state and will be a big help to the fall flowers, such as the asters, goldenrod, Spanish needle, and Mexican clover.

Condition of Bees: Many colonies of bees have starved to death this summer and are still starving. Some beekeepers made the mistake of removing the few pounds of honey the bees gathered in the early spring and have caused the bees to starve. Many colonies are down in brood, bees, and stores. Some colonies lost considerable brood from neglect.

Market: There seems to be very little demand for the dark honeys. Light honey, especially sourwood, is selling at a fast pace. The cut-comb honey pack is selling for approximately 40 cents per pound retail.

Miscellaneous: Several favorable comments have come in regarding the Short Course at Clemson College during Farmers' Week. Some very good lectures were given, including those by G. H. Cale, Editor of The American Bee Journal, Hamilton, Illinois; M. J. Deyell, Medina, Ohio, Editor of Gleanings In Bee Culture; Walter T. Kelley, Editor of Modern Beekeeping, Clarkson, Kentucky and George Vest, Manager of The G. B. Lewis Company, Lynchburg, Virginia, and others.

Interest is building up for the Southern States Meeting to be held in Atlanta, Georgia on November 2 and 3, 1953.—W. H. Purser, Assistant Entomologist, Clemson, So. Car.

BRITISH COLUMBIA, August 21

Weather: Although May was notable for its average mean temperatures, considerably fewer hours of sunshine and poor moisture conditions resulted in a heavy food consumption by colonies. During June, there were even fewer hours of sunshine. This lack of sunshine together with cool wet weather contributed greatly to excessive swarming of colonies.

Honey Plants: Dandelions did not yield sufficient nectar in most areas to supply the demands of brood rearing, and fruit bloom was equally unproductive of nectar. As though to offset the earlier dearth of nectar, snowberry (**Symphoricorpus Albus**), alfalfa, and sweet clover have seldom appeared to be in better condition. Snowberry and sweet clover in particular have done much to brighten up the honey crop picture. The yield from alfalfa has been sustained wherever this crop has been permitted to bloom, and second crops of alfalfa are now providing a good source of nectar.

Miscellaneous: Generally speaking, the beekeeper who has cared for his bees properly during the dearth period should harvest a good average crop. The quality of surplus honey gathered to date is excellent, and in most areas the color is light. Swarming of package bees has provided quite a problem for many beekeepers in British Columbia. Supersedure of apparently healthy and vigorous queens has provided a very perplexing problem to local beekeepers, and it is apparent that much study and consideration must be given to this problem. A combination of spray poisoning and cool evenings has resulted in an unusually large amount of chilled brood. This was particularly noticeable in the East Kootenay district.

Marketing: Most of the 1953 crop is of a light color and the quality is excellent. Price of the 1953 crop sold by the producer varies from 20 to 25

cents per pound.—J. Corner, Provincial Apiarist, Vernon, B. C., Canada.

* * *

ONTARIO, September 9

Weather: We are just recovering from the effects of a heat wave that lasted nearly three weeks and sent temperatures soaring to near record levels. Day after day the thermometer registered in the high 90's, and on August 27th it reached an even 100 degrees at Toronto. The heat was accompanied by a high percentage of humidity which made it all the more unbearable. In our Northern latitudes we are not accustomed to such extreme temperatures and a prolonged spell causes severe discomfort, and in my own case, a lack of ambition and reluctance to engage in any real physical exertion. However, it didn't have any such effect on the bees. They revelled in it, and were going and coming with that directness of purpose that indicates a good honey flow. Whether such a burst of activity was adding any weight to the supers, I cannot say, as I didn't take the trouble to look.

As mentioned last month, our light honey crop was disappointing, and beekeepers in some areas were hoping for a flow from late alfalfa. Only in very rare cases do we get a flow from alfalfa here in Central Ontario. Soil and climatic conditions are seemingly unfavorable, although in the Niagara peninsula alfalfa flows are more common. We depend on goldenrod and buckwheat for our fall flow. Considerably more of the latter was available this year, but reached the nectar-yielding stage at the beginning of the hot weather, and ripened prematurely. While the odor of buckwheat was noticeable in the bee yards it is doubtful if any considerable quantity was stored. I believe what fall honey there is will be largely red clover.

Dr. Eva Crane of England was a visitor to Ontario, visiting the Ontario Agricultural College on August 13th. The visit was the occasion for a gathering of beekeepers to the number of 225 to listen to her address, and enjoy a supper of barbecued chicken.

Canadian National Exhibition at Toronto is drawing to a close at this date. This exhibition draws an attendance of over two million annually, and it is the show window for Canada's manufactured goods, and agricultural products, including honey. The honey show offers an impressive list of prizes for liquid, granulated, and comb honey to individual exhibitors. Following the judging the exhibits have been grouped into one great display, which has been one of the features of the exhibition. This year entries were disappointingly small. This is understandable because of the small crop of honey in the first instance and the fact that a good deal of it is in the minimum white classification. Many would-be exhibitors no doubt felt their honey was not exhibition quality. Suggestions are being made that a portable exhibit to visit smaller fairs would bring honey to the attention of many more thousands of potential consumers.

Miscellaneous: Removal of moisture from honey is claiming more attention each year. Our grades are based on moisture content, and although honey may be water white in color, a high moisture reading will place it in No. 2 grade or lower. Naturally beekeepers dislike marking beautiful white honey as No. 2, and a good deal of research has been done by individuals and government agencies to find a simple and easy method of moisture removal. Warming pans and hot water coils and other devices have been tried, but the plan now recommended is a hot room, or drying room in which a continuous stream of warm air at around 90° is blown by a fan through stacks of supers for 24 hours or more, depending on the percentage of moisture to be removed. There are probably as many adaptations of this plan as there are beekeepers using it, but the point is that anyone can market No. 1 honey through the expenditure of a comparatively small sum for the necessary equipment. And I am assured by those who have used it that it will repay the investment in a comparatively short time. And so the honey industry takes another forward step. — Allan T. Brown, Peterborough, Ontario.

Bee Facts

(A Digest of Scientific Research)

Winter Cluster Humidity

Beekeepers should always be interested in the humidity in the winter cluster of a colony of honey bees for it has generally been considered an important factor for the welfare of colonies of bees during this period. Dampness in the hive usually results in poor wintering.

So it was good to learn that some recent research indicated no positive evidence that temperature and humidity outside the hive has any effect on humidity in the cluster. So reported Mr. J. Simpson, beekeeping specialist at the Rothamsted Experimental Station in England.

Using a specially constructed dew-point apparatus, Simpson found that the temperature of the air emerging from the cluster was frequently below the dew point of the air in the center of the cluster. In spite of this, no condensation was observed near the cluster except when the outside air was nearly saturated.

Reference: Simpson J. 1950. Humidity in the Winter Cluster of a Colony of Honeybees. Bee World. 31(6), 41-44.

●

Honey Improves Fruit Cake Quality

"Since honey flavors are derived from floral sources, their use in fruit cake should be complimentary to that of the fruit," reported professors Loren B. Smith and John A. Johnson, milling specialists at Kansas State College. The scientists endeavored to learn how various floral honeys affect the eating quality of fruit cake.

Substituting various honeys for all of the sugar in a simple pound cake revealed that honey held significantly more moisture in this cake crumb than sucrose.

After seven days storage the effect of various honeys on retention of moisture was determined. Buckwheat was ranked first, followed in order by Spanish needle, fall flower, tupelo, horsemint, cotton, eucalyptus, star thistle, sweet clover, orange, Arizona alfalfa, mesquite, light amber alfalfa, heartsease, white clover, and sucrose.

When the cakes were tested after they were baked, the honey cakes possessed a superior slicing quality compared with the sucrose cakes. The honey cakes were also of a better flavor than the sucrose cakes. It should be noted that the only exceptions were the cakes made with buckwheat or fall flower honeys. Other strong-flavored honeys did not impart any undesirable flavor into the cake.

While a number of honeys used in this study improved the slicing quality or decreased the extent of crumbliness, according to Smith and Johnson, white clover, amber alfalfa, horsemint, Arizona alfalfa, thistle, and orange honeys did not.

"Certain honeys were consistently ranked for aroma and flavor below that of other honeys," the milling specialists said. "Thus fall flowers, Spanish needle and buckwheat honeys were ranked less desirable than other honeys."

Reference: Smith, Loren B. and John A. Johnson. The Bakers Digest. Vol. XXVII, No. 3, pp. 52-54. June 1953.

●

No Bees, No Melons

S. E. McGregor and F. E. Todd of the University of Arizona closely watched insects visiting cantaloupe flowers and they found that only honey bees were effective in pollinating cantaloupes. Pollinating insects other than honey bees were practically non-existent. Their experiments showed conclusively that the melons produced near the crown of the plant were sweeter. They concluded that to get the best melons, growers should have ample bees available when the first flowers appear.

Reference: McGregor, S. E. & F. E. Todd. No Bees, No Melons. Progr. Agric. in Arizona. Vol. 4, No. 2. 1952.

From the Field of Experience

A Middle Entrance

By David Bone, Beckenham, Kent, England

A stock provided with a middle entrance. The outer cover has been removed to show how additional ventilation may be given at the top of the hive in hot weather.

FOR TWO or three years I have been using a simple form of middle entrance which seems to be in all ways satisfactory. The super is merely set back a little from the front of the hive, so as to leave an entrance, three-eighths of an inch wide, right across the tops of the brood frames. This does not open a corresponding gap at the back of the super.

Bees always prefer an upper entrance, and take to this one readily. It gives foragers coming home from the fields direct access to the super with their loads of nectar, or to the upper part of the brood combs with their loads of pollen, without having to traverse the actual brood nest at all.

This is not only quicker and easier for the field bees in the busy time of a honey flow, but it also relieves the overcrowding and congestion of the brood nest that occur when the brood box is used as a thoroughfare and temporary storage depot by the home-coming workers, and so tends to prevent swarming. Furthermore, this middle entrance greatly improves the ventilation of the crowded hive; and this, too, doubtless discourages swarming.

This opening, just nicely situated between the storage cells in the upper part of the brood nest and those of the super, must be extremely useful to the bees when they are circulating currents

of air in order to concentrate the nectar. A lower entrance of full width and depth is used at the same time.

In very hot weather ventilation may be yet further promoted by removing the block that closes the feed hole, and by placing four corner pieces of wood, three-eighths of an inch thick, upon the inner cover to raise up the roof. The outer hive cover may itself be ventilated, but such built-in ventilation is hardly adequate under such conditions.

No trouble is experienced in taking off and replacing the super or supers; but you will of course find plenty of bees on the front lugs of the brood frames, and a little smoke may be necessary to shift them now and then during manipulation.

When the super-clearer board is put on, the super may be replaced in the normal position; and thereafter the bees will find their way back to the lower entrance. They may seem a little perplexed for a few days; but they soon get accustomed to using their old entrance.

I have, however, wintered bees here in England with this upper entrance still in use and fully exposed. On removing the super, I placed the inner cover over the brood box in a corresponding position, so as to leave all the front lugs of the brood frames exposed. The middle entrance had now become a top entrance, and, unlike most so-called top entrances, an entrance right at the top of the hive.

So that the outer cover of the hive did not obstruct it, I left an empty shallow rack in place over the inner cover. The overhanging roof provided protection against rain and snow; and the lower entrance was contracted to five inches by the insertion of the entrance block. I treated a stock in this way for two or three winters; and each spring they came through better than any other lot in the apiary. Anybody who attentively considers Langstroth's teaching about upward ventilation and the wintering of bees, will not wonder why.

[We have tried this method of ventilation and it appears to work quite well. Some advocate staggering all supers during a honey flow. This, we feel, may be overdoing the matter of ventilation in that it might interfere with the normal curing of honey by the bees.—Ed.]

Extracting and Straining Honey

By M. J. Deyell, Editor

A small two or three-frame extractor is large enough for the beekeeper with from one to 25 colonies. A small motor saves much labor of turning the crank by hand.

The room in which the extracting is done should have windows, screening the bees out. The extractor should be securely anchored down to the floor to prevent its rocking while in motion.

Combs of approximately the same weight should be selected so that the machine will not be thrown out of balance. After combs are uncapped with a hot knife, they are put in the baskets of the extractor. Part of the honey should be thrown out of one side of the combs, which requires only a few revolutions, then the combs are reversed and all of the honey is thrown out of the combs on the opposite side. The combs should then be reversed again and all of the honey thrown out of the first side. This procedure avoids placing too much strain on the midrib of the combs and results in a minimum of comb breakage.

The commercial beekeeper with a large extractor will use a honey pump for pumping the honey from the extractor into the tank. The small beekeeper with a hand machine will run the honey from the extractor into a pail, then empty the honey into a small tank covered with two thicknesses of fine cheesecloth for straining the honey. This cheesecloth may be fastened over the top of the tank by means of a wire, tightened with pliers.

During hot weather, honey direct from the extractor will strain through two thicknesses of cheesecloth quite readily. If the weather is cool, it may be necessary to heat the honey before straining. To do this the honey should be run into 60-pound cans from the extractor and heated in a wash boiler with water surrounding the cans which should rest on two sticks. The honey should be heated to a temperature not to exceed 155°F. for about 20 minutes, then strained.

Counts Bees on Bloom

By Walter Barth, Assistant Editor

Roger A. Morse, beekeeping specialist at Cornell University, is shown tagging blossoms of bird'sfoot trefoil prior to placing the legume in a cage with honey bees to determine the number of visits received by each blossom. Through pollination this plant offers a new source of income to beekeepers.

This close-up shows the effects of poor pollination on the development of bird'sfoot trefoil seed (left) as compared with the effects of efficient pollination on seed development (right). The resemblance of the four pods on the right to a "bird's foot" is responsible for the popular name of this promising legume.

FINDING OUT how many times a honey bee must visit a single blossom of bird'sfoot trefoil before seed is set is the problem of Roger A. Morse, assistant in apiculture at the Cornell Agricultural Experiment Station. When he learns the number of honey bees needed for efficient pollination it will be possible to fulfil the national requirements of 12,000,000 pounds of this legume seed.

"Poor pollination is one of the reasons why only a quarter of the amount of bird'sfoot trefoil seed has been produced," Morse reported. "This problem continues even though honey bees are responsible for 95 percent of the pollination of legumes in New York State, while bumblebees account for one percent, and the remaining four percent by wild bees."

Working with honey bees in controlled conditions in a greenhouse, the beekeeping specialist is determining the effects of over-pollination of a single flower. How temperature, humidity, plant vigor, and age affects seed set will also be studied.

"Bird'sfoot trefoil in cages free of honey bees bloom longer than similar flowers exposed to these pollinators," Morse said. But he also pointed out

that "no seed is set when the plants are isolated in this way, indicating the need for honey bees."

Bird'sfoot trefoil is a new long-lived legume that is best for soils that are not well drained. It is of greatest use where conditions are unsatisfactory for a long-lived productive stand of alfalfa or Ladino and to replace red clovers for meadows to be left down more than two harvest years.

New Book on Honey Bees Can be Free to You

FOR CENTURIES the tiny bee has been admired for its creative industry, and now the editors of CHILD LIFE Magazine, in conjunction with Doubleday and Company, Inc., have chosen him as their symbol for an arresting new venture!

The first six of their new series of activity books for children is to be released this fall. A title for the series was required, which would convey to the buying public the overall nature of the contents. Of course, the editors dreamed of injecting into the title a generic word which would in time be associated with their product, such as "Coke" or "Victrola".

Many suggestions were bandied about, but finally the humble honey bee was chosen, as suggesting the directed industry which the books would provide so amply. Thus were born the Busy Bee Books, and a long and useful life is predicted for them! The theme of creative activity was further carried out throughout the series by using the outline of a hive on each cover, as a framework for the brilliant, gay, and eye-catching illustration of each title.

The series to date consists of six subjects of proven popularity, around which each book is themed .... the Wild West, Space, Forms of Travel, Pirates, Animals, and the major holidays of each year. Favorite subject-matters which have stood the test of time, and the current new enthusiasm for worlds-yet-unconquered are thus blended, as well as subdivided into correlating age-groups.

WITH SO much emphasis on the honey bee, it is only logical that much of the promotion for these books will revolve around the honey industry. Window displays, utilizing observation bee hives, are planned for the largest bookstores and department stores in major metropolitan areas. Promotion plans also call for special combination sales of one pound of honey with each $1 book sold. The publishers are working with Mrs. Harriett Grace of the American Honey Institute, and some of the bee supply manufacturers and dealers to promote these Busy Bee Books during National Honey Week in October.

If any beekeeper would like to receive valuable publicity and a complete set of the Busy Bee Books by providing an observation bee hive, for these window displays, contact Mr. Edward Stoddard, Garden City Publishers, 575 Madison Avenue, New York, N. Y.

West Coast Beekeeping Library

By Gertrude Lauritzen, Rio Vista, Calif.

The University of California Bee Library at the Davis campus is believed to be one of the outstanding of its kind in the United States.

The volumes now numbering nearly 2,000, include periodicals from Switzerland, Italy, France, and Germany. Some date as far back as 1856 and were acquired from the American Bee Journal.

Much of this collection has been gathered by John E. Eckert, Professor of Entomology at the Davis campus and one of his current projects is the search for copies of "Anatomy and Physiology of the Honey Bee by Snodgrass", published in 1925 by McGraw-Hill Book Company.

Efforts are being made during this centennial year, to have a historical marker erected at the site of the first bee colony in the State of California. Today the bee colonies number some 521,000, benefitting an estimated 700,000 acres which does not include the cotton acreage of California.

A two-year study is being made by the University of California at Davis to establish the relation of the honey bee to the cotton production.

Who's Afraid of Bees?

At a North Carolina summer meeting held recently at Boone, Raymond Presnell of Shulis Mills, N. C., put on a rather unusual act with bees. A queen was taken from a hive and put in a cage tied around his neck, the queen hanging below his chin. Bees from the queenless colony were then shaken into a cardboard box which was held near the queen until the bees began to cluster around the caged queen. In due time the front of Presnell's body was covered with bees. He received very few stings. Other beekeepers have put on similar acts.

This incident was also reported in September 21st issue of **LIFE** magazine. Look for it on your newstands.

The front of Raymond Presnell's body was entirely covered with bees.

Honey and Other Findings in Old Europe

By Woodrow Miller, Colton, California

Memo of observations enroute from Colton, California to Pompeii, Italy, via Ireland, England, Belgium, Holland, Germany, Denmark, Switzerland, France, and Austria. ....

HONEY IN northern Europe. You will be pleased to learn that Honey is a most popular food there. Europeans have eaten a lot of North American Honey and want more.

Honey is served in most all restaurants, dining rooms, can be found not only in honey specialty shops, but practically all grocery stores, fruit stands, candy shops, delicatessens and many other retail shops in Germany, Holland, Belgium and through Northern Europe. Its place is more as a basic food. Its beauty and eye appeal is not promoted as it is in the United States.

These countries are still short of materials. Containers are scarce. Glass and caps are expensive. Consequently, much of the honey is dispensed without the use of these. The housewife takes her cup, jar and pail, places them in a basket and goes to her neighborhood market.

I found five gallon cans of granulated honey with tops cut out on the counters of neighborhood stores. They were covered with clean white linen cloths—the honey is dispensed from these cans to the container the housewife brings, thus saving the cost of the jar, cap, label, and work of packing. If she buys a jar of honey from the shelf, she must pay a deposit of approximately 10c extra on the container and this is a lot of money to the Europeans who are saving everything possible to provide themselves with the necessities of life. Bottles and caps are used over and over again.

I WAS glad to see a honey packing firm in the Netherlands doing an excellent job of promoting and publicizing honey. They had written a Mickey Mouse type of illustrated story built around the honey bee and were distributing it in booklet form. It was cleverly illustrated in full color.

They had some unique honey packaging. One was a bee skep type of jar that was being readily accepted but I was sorry to find packed in the beautiful decorative ceramic bee skep a strong dark eucalyptus honey which I learned had been imported from Australia.

The honey that I saw in the markets I would describe as light amber alfalfa honey. From the aroma and flavor I feel confident the honey came from Imperial Valley, Blythe, Yuma or the Salt River Valley in Arizona.

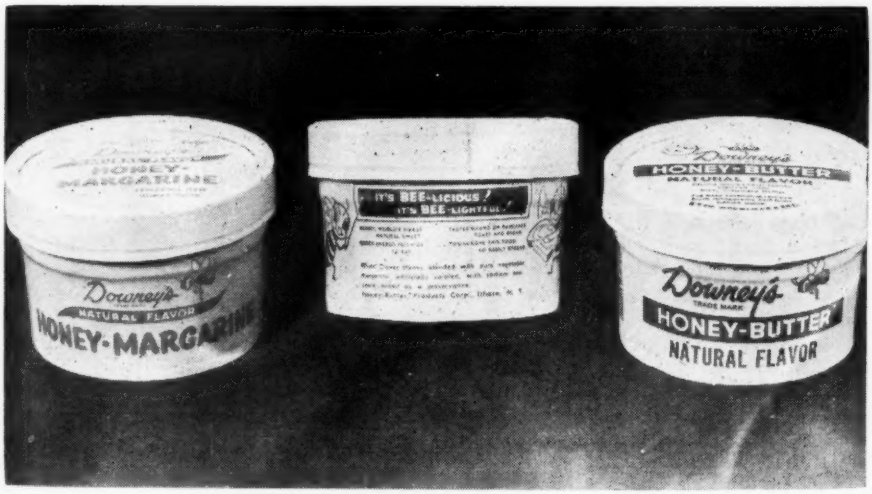
MOST OF the honey raised in Europe which I have sampled was honey dew varying in color and flavor from dark and strong in Germany to fairly light and mild in France. Heather honey is quite a delicacy but production is very limited.

Pascal LeClerq gave us some rosemary honey from Southern France. It is light in color with a delicate aroma and mild flavor but the production is small. Pascal wanted to be remembered to his many American friends that he met during his working with the honey industry for many months while here.

Knowing how honey is dispensed in many parts of Europe I can now understand why my German father taught us to pack every five gallon can of honey ready for the dinner table, free of all wax particles and in new containers kept bright and shiny, regardless of where the honey might be going.

The many millions of pounds of honey shipped from this country to Germany and Holland the past few years were, with the exception of a couple of lots shipped last year, a credit to the beekeepers and dealers.

From Cigarettes to Honey.....



..IT'S THE BLEND THAT COUNTS! Capitalizing on this idea is J. J. C. Downey, President of Honey Butter Products Corp. of Ithaca, New York. He packs a series of blended honey products in very attractive packages. These quick turnover items come in a natural or a cinnamon honey-butter combination or in a smooth honey-peanut butter mixture. Natural or cinnamon flavor honey-margarine is the newest member to this family of fine foods.—Photo by G. Kruse, N.Y.

A Talk to Beginners

M. J. Deyell

(Continued from September)

More about Alberta

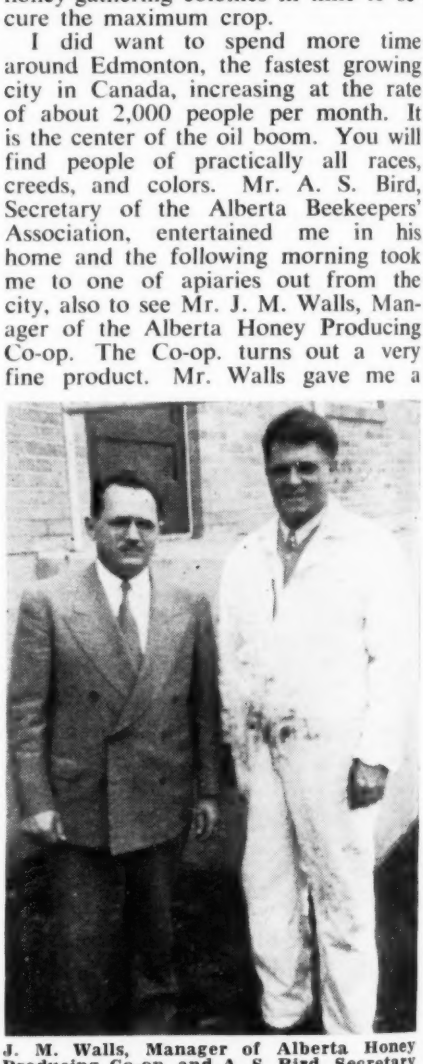
ALBERTA CONTAINS over 250,000 square miles. One can travel for a day, from south to north by automobile and still remain within the province. I wanted to get up into the Peace River district, some of which is in the extreme northwestern part of Alberta, also in northern British Columbia. This is said to be an unusually favorable part of the country for beekeeping because of the abundance of clovers, including sweet clover, and also favorable soil and weather conditions for nectar secretion.

I did get as far north as Westlock, 50 miles north of Edmonton, where I met Jack Edmunds, Provincial Apiarist. After a short visit with him and his helpers I started north over secondary roads in the direction of Peace River. The weather became stormy and the roads extremely slippery so I abandoned the idea of making the trip. As a matter of fact, my time was rather limited and I had to keep up with my itinerary in order to make all of the calls that seemed necessary.

I have wished since, however, that I had made that trip because I have had an opportunity to talk with some beekeepers who have been in that region. While the beekeeping possibilities there are above the average, the difficulties encountered in the way of having package bees delivered and installed at the proper time in the spring, also the extra labor involved, naturally reduce the net profit realized even though unusually large crops are secured.

I understand that two-pound packages with queens are used in the Peace River district rather than three-pound packages. It would require some skillful manipulation to develop populous honey-gathering colonies in time to secure the maximum crop.

I did want to spend more time around Edmonton, the fastest growing city in Canada, increasing at the rate of about 2,000 people per month. It is the center of the oil boom. You will find people of practically all races, creeds, and colors. Mr. A. S. Bird, Secretary of the Alberta Beekeepers' Association, entertained me in his home and the following morning took me to one of apiaries out from the city, also to see Mr. J. M. Walls, Manager of the Alberta Honey Producing Co-op. The Co-op. turns out a very fine product. Mr. Walls gave me a



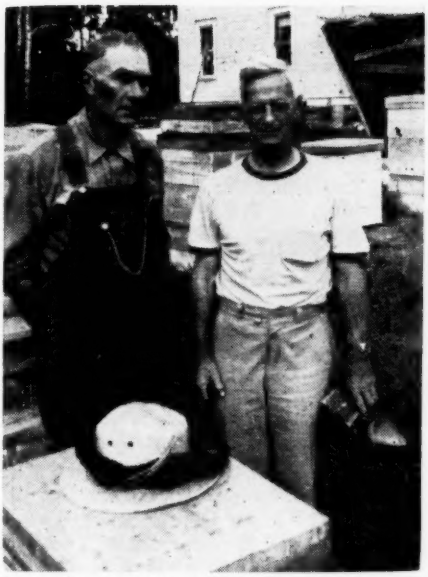
J. M. Walls, Manager of Alberta Honey Producing Co-op. and A. S. Bird, Secretary of Alberta Beekeepers' Association.

four-pound can of crystallized honey which I put in the back of my car. Unfortunately the intense heat to which the honey was subjected on my trip caused it to liquefy before I arrived home.

A Never-to-be Forgotten Experience

When I told a beekeeper in British Columbia about the experience I am going to relate, I asked him if he thought it would be worth putting in Gleanings. His answer was, "Oh, by all means, include that in your story about your Western trip," so here goes: I had rather planned on going back to Calgary, then west to Lake Louise which we hear so much about. Instead of taking that route which would have meant back-tracking, I made inquiry about the road from Edmonton to Jasper a distance of 262 miles. I wanted to see Jasper National Park. I was told that the road was fairly good except a few spots that were secondary. I left Edmonton on Route 16 to Jasper about 6:30 p.m. The first 30 or 40 miles were over a very good paved road. In the distance I saw some thunder caps which meant a shower in the West. I suddenly came to the end of the paved road and ran into some Alberta black mud which is the stickiest I have ever seen. It is similar to North Dakota gumbo. My car slowed down to about 12 miles per hour, slithered about over the road and at times came uncomfortably close to a deep ditch. I met a number of trucks and each time one passed me it would spread a layer of mud on my windshield until I couldn't see a thing in front. The windshield wiper was of no avail. I wiped off enough mud with a piece of cloth to enable me to see at least a part of the road ahead.

Darkness was coming on. It seemed impossible to go further so I managed to turn off the slimy road onto a slightly higher level in front of a small grocery store opposite Chip Lake. I had not taken time to eat supper, in fact, I hadn't found an eating place along the road. After entering the store which had a lantern instead of electric lights, I felt hungry and bought some oranges and cookies which tasted mighty good—anything to keep soul and body together. So there I sat on a box in this dimly lighted store, munching away at cookies at 11 p.m. I spent the night on the air mattress in my car. The temperature got down to the lower 40's and I had difficulty keeping warm, even after I piled on all the available blankets and my overcoat.



T. C. Pangle, Lacombe, Alberta, a commercial beekeeper and W. G. le Maistre of Edmonton, Extension Specialist for Alberta.

Next morning the boy at that station washed the windows of my car and after waiting a few hours for the mud on the road to dry up, I drove on to Jasper. It is remarkable how quickly the sun will dry out this black Alberta mud.

I HAD to pay $2.50 to have my car washed at Jasper but even at that the garage man made little, if any profit. That experience taught me that in the future I should secure information on roads and highways from a reliable source.

There is something rather peculiar about the sky and cloud formations in the far North. As I approached Jasper, I noticed a cloud "the size of a man's hand" and a few minutes later I was in the midst of a rather severe hail storm. The storms come and go quickly in that country.

The road from Jasper and to Lake Louise was not too good but the scenery was picturesque, in fact, breath-

taking. I did not see any bee hives along the way, in fact, do not know what bees would live on in that mountainous country. I noticed some plants I had not seen before but did not see any honey bees on them. Now it is possible that some beekeepers who may live along the road I traveled will be telling me that their bees store surplus honey and that I should investigate conditions more carefully.

I reached Lake Louise rather late in the evening and finding "no room in the inn" had to again sleep in my "home on wheels." Those of you who have visited Lake Louise know that the night temperatures get rather low at times. The next time I visit the far North in my Dodge Sierra, I will take along an electric blanket. Space does not permit comment concerning the beauties of Lake Louise other than to say that one has to actually see this picturesque spot to appreciate it.

I then traveled in a southwesterly direction to Spokane, Washington. After crossing the Canadian line I noticed considerable bee forage in the extreme northern part of Idaho and northeastern Washington which appeared to be quite good for beekeeping although I did not observe any hives along the highway.

After spending part of a day in Tacoma, I headed northwest again, along Highway 395, for southern British Columbia. As I recall, I crossed the Canadian line at Grand Forks, B. C., then traveled West over a range of mountains until I reached Osoyoes near the lower end of Lake Okanagan. Sweet clover was beginning to bloom along the highways. An average sized apiary along the road attracted my attention so I turned in to watch the bees and talk with the owner. Unfortunately he was away that day. The hives were fairly heavy with honey and the bees working well.

Okanagan Valley

I had not realized what a wonderful place this valley is. I wanted to see John Corner, Provincial Apiarist at Vernon, B. C., near the upper end of this valley so I had occasion to travel the entire length of it—about 100 miles. I shall never forget the beautiful scenery, the orchards of Bing cherries and also the peaches. The orchards

D. R. Beard Calgary, Alberta, in his backlot apiary. He is Secretary of the Calgary Association.

are irrigated with water from a nearby lake. At that time the cherries were ripe and offered for sale at fruit stands along the road.

I was told that winters are comparatively mild in the valley and it rarely gets cold enough to freeze ice. I wouldn't mind living there. Bees are needed in the valley for pollination purposes so there are quite a number of beekeepers in that area.

I had a pleasant visit with the State Apiarist, Mr. Corner, who took me to see the oldest beekeeper in the state, Mr. Bettschen of Vernon who has a number of interesting exhibits at his home. We also saw W. H. Turnbull, who was Provincial Apiarist for ten years. At one of the grocery stores I picked up a jar of British Columbia honey which has a good flavor, somewhat different from the general run of honeys.

It has been said that approximately 90 percent of the honey produced in Canada reaches the table in crystallized form. However, at present the demand for liquid honey appears to be on the increase.

(to be continued)

Just News

The **Westchester County Beekeepers' Association** will hold its next meeting at 2:30 P.M., Sunday, Oct. 18, at the Odd Fellows Hall, 20 Lockwood Ave., New Rochelle, N. Y. Getting bees ready for the coming winter will be the topic of the day. All members are urged to be on hand. Visitors always welcome. — Carlton E. Slater, Publicity.

* * *

Middlesex County Beekeepers' Association (Mass.) held its final meeting September 26 at the Farm and Apiaries of Charles Helmboldt at Westford, Mass., in the center of the apple section of Mass. The "Club Hive" proved to be in fine condition and the queen which was painted blue early in the spring, was in fine condition and the hive was still full of brood although all expressed the surprise at the complete absence of "drones" or drone cells. This is the meeting where the "Club Hive" is given to some member and many other prizes were distributed including a one-year subscription to GLEANINGS as well as many other useful and valuable items of beekeeping. The list of winners is too long to give here. Middlesex recommends that other beekeeping associations start a "Club Hive" next spring and move it to each meeting location during the summer months and watch the progress made. This is the finest way for new beekeepers to get the idea of how it is done. The first indoor meeting for the season will be held at the winter quarters at the Mass. State Experimental Station in Waltham on October 24, one week earlier than usual because of the Halloween holiday the last Saturday in the month. This meeting will start with a dinner with all the fixings, and after a short business meeting motion pictures and still pictures in black and white and also color will be projected on the screen for the showing of actions taken during the spring and summer season. The dinner is by reservation only but beekeepers in the vicinity are welcome to the meeting after the dinner to see the pictures about 8:30 P.M.—John H. Furber, Sec.-Treas.

* * *

The **Lake Regions Beekeepers' Association** will hold its fall meeting at Sundberg Bros. Farm, two miles north of Fergus Falls, Minn., on Tuesday evening, Oct. 6. Mr. Floyd, the state apiarist will be there.—L. W. Sundberg, Secy.

* * *

The Annual Meeting of the **Iowa Beekeepers' Association** will be held in Ames on November 17 and 18. The program which is developing assures a lively discussion of timely topics. —F. B. Paddock, Extension Apiarist.

* * *

Illinois State Meeting — The 1953 annual Illinois State Beekeepers' Association convention will be held November 6 and 7 at the St. Nicholas Hotel, Springfield, Ill. This is a period that should enable most beekeepers to attend the meeting. Some of the convention highlights will be published in the September-October issue of the Association bulletin.

* * *

Southern Bee Inspectors' Meeting— In connection with the coming Atlanta meeting on November 2 and 3 of the Southern States Beekeepers' Federation, it is planned to have a special get-together meeting of all Bee Inspectors of the Southern States. A luncheon meeting at noon, Monday, November 2 is planned. It is suggested that each inspector come prepared to air his views on the following topics:

1. The upsurge of European foulbrood and how to meet it.
2. Bee disease laws of the Southern States.

The advisability of forming an organization of Southern inspectors will likely be discussed at this meeting. All who expect to attend are asked to notify W. H. Purser, Inspector for South Carolina, Clemson, South Carolina, as soon as possible, so that luncheon reservations may be made.—David Dunavan, President, Southern States Beekeepers' Federation.

The **Florida State Beekeepers' Association** will hold its annual meeting in Blountstown, Florida, on Nov. 5 and 6. The meeting will feature a boat trip of the famous tupelo honey producing district of Wewahitchka, Fla. A cordial invitation is extended to all beekeepers and friends. — Roy E. Novinger, Vice.-Pres.

* * *

The **Southern Tier New York Beekeepers' Association** will hold its next regular meeting at C. L. Reynold's Radio and Appliance Salesroom, 25-27 Sturges St., Binghamton, N. Y., Tuesday, October 20 at 8:00 P.M. Light lunch will be served. All interested in keeping bees are cordially invited to attend. We would like to make this one of the largest bee meetings in New York State. The guest speaker will be Harold Andrew of the Finger Lakes Honey Co-op., Groton, N. Y.—H. B. Webb, Publicity.

* * *

The fall meeting of the **Connecticut Beekeepers' Association** will be held on Oct. 17, 1953, in Hartford Y.M.C.A., corner of Pearl and Jewel Streets, northeast of the State Capitol Building. Lunch will be in the Y.M.C.A. cafeteria. Our scheduled speaker for the day is Professor Frank Shaw of Amherst University, Mass. His talk will be on a recent trip through the south. Slides will be shown of this trip. Professor Shaw is head of the beekeeping department at Amherst. Beekeepers and friends interested in bees are invited.—Philemon J. Hewitt, Jr., Pub.

* * *

Films Available to Pacific Coast Beekeepers—When you are looking for an entertaining movie to show at a beekeepers meeting, be sure to contact the Audio-Visual Center, State College of Washington, Pullman, Wash. They have four movies as well as film strips that can be obtained at a very low cost. Here are some of the items available: City of Wax, Honey Bee, Pollination of Alfalfa, Story of the Bees, and a film strip called Transferring Bees to Movable Frame Hives.

* * *

"We Can Learn From the Bees", so says the General Motors Corp. in a new bulletin distributed to their many employees. This 11-page publication was designed to familiarize the many General Motors employees with the beekeeping business. The booklet centers around Leon H. Camp and son, Roy, who posed for the illustrations. The life cycle and habits of the honey bee are described and compared with life in a General Motors factory.

* * *

Beekeepers Won't Get New Container—"Until the price of the polyethelene honey container is lowered," says Ralph W. Barnes, noted honey packer of Oakland, Nebraska, "this item would not be in reach of the small honey packer." This statement is in response to many requests for information about the polyethelene honey container story that appeared on page 471 of the August 1953 issue of Gleanings. According to the Nebraska honey packer, the new plastic container is expensive. To get a favorable price it is necessary to purchase the containers in million lots. Mr. Barnes has registered the "Honey-Squeeze-Me" trade name, and at present he has exclusive rights on the use of this bottle for honey. A large grocery company has been given the exclusive distribution right to distribute Barnes honey container throughout the United States. This same company also has foreign distribution of the plastic container.

* * *

News on Bakery Research with Honey—The results of nearly three years of bakery research with honey is now available free to beekeepers. The information, reprinted from several bakery magazines, is issued under the following titles: "Honey Improves Fruit Cake Quality"; "Honey—Its Value and Use in Popular Cookies"; "The Use of Honey in Cake and Sweet Doughs"; and "Honey—Its Use in Bread Production". To get your free copies of the above information, simply write to the Honey Section, Biochemical Division, Eastern Regional Research Laboratory, Philadelphia 18, Pa.

* * *

International Congress—The 15th International Beekeeping Congress will be held August 30-September 4, 1954 at Copenhagen, Denmark. His Royal Highness, Prince Axel, has promised to take over the "Protektorat" of this

Congress. Prince Axel is a beekeeper himself, and the Danish King keeps bees on his summer residence, being a member of Denmark's Biavlerenung. —B. Schwartz-Hansen, President of the Congress.

* * *

New York Beekeepers' Sue State—An estimated loss of nearly $200,000 to bees and honey crop in northern New York is blamed on the state's DDT spraying program against tent caterpillars. The spraying was done by airplane by the State Conservation Department on May 11-12 in the Grindstone and Wellesley islands areas and a few days later in the Heuvelton-Hammond areas of St. Lawrence counties. As mentioned in the September issue of Gleanings, the attorneys for the beekeepers have given notice of intent to file claims with the state attorney-general's office. The claimants are Wilburt and Arthur Wahl, of Clayton; Claire Newton, of Watertown; Howard Norton, Limerick; John Hargrave, Madrid; Homer Dunn, Lisbon; Arthur Wilson, Hammond; Lyle Smithers, Heuvelton, and Michael Boczko, Lisbon. Specialists from the State Conservation Department and the New York State College of Agriculture came to the affected areas and consulted with the beekeepers. Mr. Leroy C. Keet, one of New York's outstanding beekeepers was also present. It is alleged that the Conservation Department used a plane at an altitude of 150 to 200 feet and discharged an oil spray of five to six percent DDT. The oil was used to make the insecticide stick. Not only did the spray cover the target areas, according to the beekeepers, but some of it drifted to other areas through the action of the wind.

* * *

According to the June-July, 1953, Federation News Letter, the **Annual Federation** meeting will be held Janury 25-30, 1954, in Baltimore, Md.

* * *

New York State looses one of its most outstanding and beloved beekeepers, in the death of **Emil W. Gutekunst** on August 24, 1953 at his home in Colden, N. Y. He was 70 years old. Mr. Gutekunst was widely known for the strain of bees he developed and the many thousands of queens that he sold to beekeepers all over the United States and other countries. Mr. Gutekunst was a very close observer and selected his own breeders from the colonies in his own yards for gentleness, good wintering, and production. He also built up a trade for the honey he produced by packing only the very best. He sold nearly all of his entire crop at the house. He was born and lived all his life in the house in which he died. Surviving him are his wife Bertha C. Radel; and two sons, Glen who lives on the homestead and his wife and three daughters, Raymond of Pavilion, N. Y. his wife and one daughter. Ray has been one of the New York State Bee Inspectors for a good many years. Emil W. Gutekunst will be missed by the industry and his many friends everywhere.—John N. DeMuth.

* * *

Word has just been received of the death of **Edward Lloyd Sechrist** of Escondido, California, following a brief illness. Mr. Sechrist was for some years in the Department of Bee Culture, Washington, D. C. He wrote a number of books and bulletins and was a beekeeper of wide experience in different countries.

* * *

The Angola, Indiana, Tri-State Meeting—A brief reference was made in the September Gleanings to this meeting of Indiana, Michigan, and Ohio beekeepers held on August 7 and 8 with an attendance of around 350. It is worthy of further mention because it was, in the opinion of those who attended, one of the best meetings ever held. And why was it so good? Because the program was well balanced and appealed to the rank and file of beekeepers, and every one entered into the spirit of the meeting. The session, "Meet the Inspector", with E. C. Martin of Michigan as moderator, stirred up considerable interest in that sulfathiazole came in for a lively discussion and bee inspectors were put on the spot. The consensus appears to be, that while sulfa inhibits or holds up the progress of A.F.B. it does not destroy the organism **Bacillus larva** and therefore is not a cure for A.F.B. It is thought by some that continuous feeding of sulfa for a time, until all the

honey in the diseased colony is used up may eradicate the disease. Only time will tell. But wouldn't it be a blessing for our industry if A.F.B. could eventually be conquered so that the terrific annual toll of diseased bees, equipment, honey and wax could be averted? Dr. Eva Crane, editor of **Bee World,** London, England, delighted the audience with her talk and pictures on "Beekeeping in Modern Europe". Dr. Otto Morgenthaler of Berne, Switzerland, an unexpected visitor, has specialized on adult bee diseases during the years and brought us his latest findings on the Nosema disease.

* * *

Man, that ain't no swarm!!!!—they are just headed for the joint meeting of the **American Bee Breeders' Association** and the **Southern States Beekeeping Federation** to be held at the Atlanta Biltmore Hotel on Monday and Tuesday, November 2-3 in Atlanta, Georgia-!!!

Monday, November 2:

8:30 REGISTRATION
9:30 Invocation: Rev. Fred L. Glisson
10:00 Presidential Address — Leslie H. Little, President American Bee Breeders' Association
10:30 The American Honey Institute — Its Accomplishments and Purposes —Mrs. Harriett M. Grace, Director, American Honey Institute
11:00 The Value of Bees to the Food of Mankind — R. B. Willson, Inc.
11:30 Preliminary Business Sessions and Appointment of Committees: ABBA, SSBF, and Georgia Beekeepers' Association
1:35 Beekeeping Today — Where Are We Headed? — M. G. Dadant & Sons, Inc.
2:00 Aims and Work of the National Honey Council — A. I. Root, The A. I. Root Company.
2:30 "Do We Need More Beekeepers?" — J. I. Hambleton, USDA, Division of Bee Culture & Biological Control
3:00 Symposium on Nosema Disease — W. A. Stephen and Dr. C. L. Farrar, Leaders.
3:30 The Bee of the Future — Dr. C. L. Farrar, U.S.D.A., North Central States Bee Culture Laboratory
6:30 Real Southern Barbecue — "Honey Chile"

Tuesday, November 3:

8:30 Call to order — Introduction of Guests
8:40 Presidential Address — Dr. David Dunavan, President Southern States Beekeepers' Federation
9:00 Symposium — The History of the Southern States Beekeepers Federation — Leslie M. Lewis, H. S. Foster, and Lynn M. Dewey
10:00 Glass and Honey — George B. Daken, Hazel-Atlas Glass Co.
10:15 Honey and the Production and Marketing Administration — Harold J. Clay, U.S.D.A., Production & Marketing Adm.
10:45 The Changing Picture in American Beekeeping — Walter Kelley, The Walter T. Kelley Company
11:15 Packing and the Consumer — Jon Clement, Owens-Illinois Glass Co.
11:30 Apple Pollination in Virginia — G. W. Vest, G. B. Lewis Co.
12:00 The American Beekeeping Federation — Henry A. Schaefer, President, A.B.F.
1:35 Final Business Meetings, ABBA, SSBF, and Georgia State Beekeepers' Association
2:30 The Future of the Package Business — Harvey F. York, Jr., York Bee Company
3:00 Shipping of Package Bees — Representative, Railway Express Agency

Registration fees for the Convention will be $2.50 each. Included in registration fee is cost of Barbecue Supper on Monday Evening. Suggest advance registrations be made for hotel room if accomodations are desired, at the Atlanta Biltmore; single room, from $5.00 to $9.00; double or twins, $8.00 to $12.00; suites, $15.00 up. Advance registrations can be made by writing to Mr. Charlie Bird, Atlanta Biltmore Hotel, Atlanta, Georgia. If it is desired that accomodations be made at any other hotel, or at any of the numerous nice tourist courts in Atlanta, please drop a line to: Mr. H. W. Ridgely, 615 Ridgecrest Rd., N. E., Atlanta, Ga., or to me.—W. B. Crawford, Jr., President No. Ga. Beekeepers' Association, 2168 Venetian Drive, S. W. Atlanta, Ga.

* * *

Cuyahoga County Association to Meet.—The Cuyahoga Association will hold its next meeting on Sunday afternoon, November 8. Meeting will start at 2 p.m. at the Miles Ave. Church of Christ, 9200 Miles Ave., Cleveland, O.

* * *

Alberta Beekeepers' Association Convention is to be held at the Masonic Temple, Edmonton, Alberta, October 29, 30, 31, 1953.

Oct. 29: Alberta Honey Producers' Co-Operative-Annual Meeting.

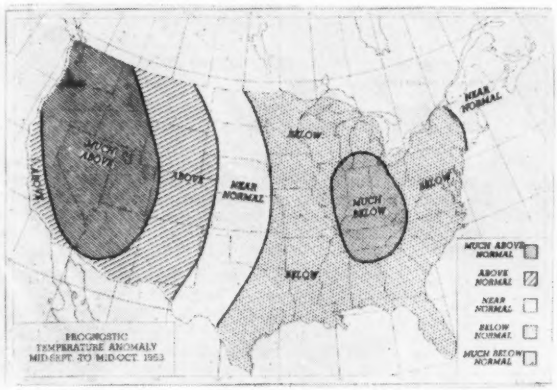
Oct. 30:
A.M. Panel Discussion.
The design, arrangement, maintenance, car, and equipment of the Honey House.
P.M. Labor Saving Devices in the Field. Pollination and Hive Rental
Eve. Banquet and Entertainment. Commercial and hobbyist's honey display.

October 31:
A.M. The Changing Policy in Disease Control.
P.M. Packing Honey for Marketing. —A Year's Experience under the new rules.

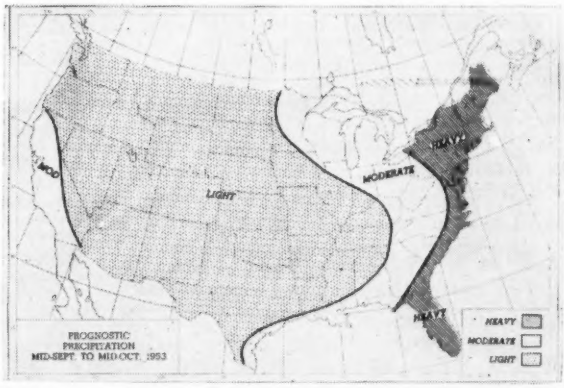
Dr. Jamieson, Dominion Apiculturist, and other speakers will be in attendance.—A. S. Bird, Secretary.

Average Monthly Weather Resume and Outlook

U. S. Department of Commerce, Sinclair Weeks, Secretary
Weather Bureau, F. W. Reichelderfer, Chief



Prognostic temperature anomaly Mid-September to Mid-October 1953



Prognostic precipitation Mid-September to Mid-October, 1953

The above charts for the United States show for the next 30 days, the expected departures from normal temperatures and the expected total precipitation by means of classes.

Outlook for Mid-September to Mid-October 1953

The Weather Bureau's 30-day outlook for the period from mid-September to mid-October calls for temperatures to average below seasonal normals over the eastern half of the nation except for near normal in New England. Above normal temperatures are predicted for the western half of the country, with greatest departures over the Great Basin and Pacific Northwest.

Precipitation is expected to be subnormal over the western two thirds of the country, but in states along the Atlantic seaboard amounts exceeding normal are indicated. Near normal precipitation is predicted over the Great Lakes Region, Ohio Valley, and Southern Appalachians.

CAUTIONARY NOTE: The 30-day Outlook given here is not a specific forecast in the usual meteorological sense, but is an estimate of the average rainfall and temperature for the next 30 days based upon the best indications now available. For more specific predictions subscribers should look to the local forecasts published by the nearest Weather Bureau office. Daily local forecasts are limited to approximately 36 to 48 hours in advance; more general 5-day forecasts are made twice a week. The Outlook will be most useful when interpreted and applied by an expert. In any case, it should be kept in mind that nearly always there are changes in the weather every few days, sometimes of a sudden and severe nature.

Buy and Sell

Only responsible advertisers and honest advertisements will be admitted to these columns. References required from new advertisers not known to us. Rate: 15c per counted word, each insertion. Each initial, each word in names and addresses, the shortest word such as "a" and the longest word possible for the advertiser to use, as well as any number (regardless of how many figures in it), count as one word. Copy should be in by the 10th of the month preceding publication.

HONEY FOR SALE

WE BUY AND SELL all varieties of honey. Any quantity. Write us for best prices obtainable. The Hubbard Apiaries, Onsted, Michigan.

IOWA Honey, one can or truck loads. Russell D. Smalley, Beaver, Iowa.

CLOVER extracted honey in sixties. Abram Brubaker, Lancaster, Pa., Rt. 1.

FOR SALE—White Clover Honey, write for prices. Lloyd E. Allen, Tipton, Mich.

Michigan's finest raspberry, basswood, clover comb honey, in 4 x 5 window cartoned sections. Extra Fancy, $7.50; Fancy, $6.50; No. 1, $5.50; No. 2, $4.50 case. E. Z. Quick Way B. Farms, Walloon Lake, Michigan.

CLOVER COMB HONEY for sale. Write Gordon Pratt, Munnsville, N. Y., R. D. 2.

MICHIGAN'S light amber honey. 467—60's. E. E. Frasher, Big Rapids, Mich.

Two and half pound fancy grade tupelo gallberry blend chunk comb. Valdosta Honey Co., Valdosta, Ga.

TRUCK LOAD of mild, heavy, clear honey. Wayne Keller, Oshkosh, Nebr.

MICHIGAN'S FINEST WHITE CLOVER HONEY. Thoroughly ripened. New sixties. You will be pleased. Sample twenty cents. John McColl, Tecumseh, Michigan.

CLOVER HONEY, white extracted, 17c pound in sixties, 5 or more 60's, at 16c. Heated and strained, 18c in sixties, 17c 5 or more. Lose Brothers, 206 E. Jefferson, Louisville, Ky.

WHITE CLOVER HONEY packed in cartons for delivery. Fred Walker, Bridgewater, New York.

HONEY AND WAX WANTED

BEEKEEPERS TAKE NOTICE—We can not guarantee honey buyers' financial responsibility, and advise all beekeepers to sell for cash only or on COD terms except where the buyer has thoroughly established his credit with the seller.

CASH for your comb honey and all types extracted. Send sample and best price. Buckeye Honey Co., 3930 No. High St., Columbus 14, Ohio.

CASH for Beeswax. Write as to quantity and we will quote price. Muench-Kreuzer Candle Co., Inc., Syracuse, N. Y.

HONEY WANTED—All grades and varieties. Highest cash prices paid. Mail samples. State quantity. HAMILTON & COMPANY, 2613 South Yates Ave., Los Angeles 22, California.

CASH FOR YOUR HONEY—Light extracted or comb. Regular trade send sample. 60-pound cans furnished if desired. W. R. Moomaw, Stone Creek, Ohio.

WRITE FOR shipping tags and quotations on rendered beeswax. We buy from one pound up and if you have over 25 pounds let us work it into foundation for you at a 25 percent saving. Walter T. Kelley Co., Clarkson, Kentucky.

HONEY WANTED, any amount. If you want more for your honey, sell it to Cloverdale Honey Co., Fredonia, New York.

WANTED—Light amber clover, amber, goldenrod, buckwheat. Advise what you have for immediate delivery. Roscoe F. Wixson, Dundee, New York.

CASH PAID for white and amber extracted honey. Send samples and state quantity available. Prairie View Honey Company, 12303 - 12th St., Detroit 6, Mich.

WANTED—Carloads or less of honey and wax. Any grade. Send sample and best cash price. Alexander Company, 819 Reynolds Road, Toledo, Ohio.

ALL GRADES HONEY AND WAX WANTED—Mail samples, advise quantity and cash prices delivered to us. HONEY SALES COMPANY, 1808 NO. WASHINGTON AVE., MINNEAPOLIS 11, MINN.

WANTED — Honey all grades. Quote prices and send sample. Write Stoller Honey Farms, Latty, Ohio.

WANTED — White extracted or comb honey. Send sample. Millersport Honey Co., Millersport, Ohio.

BEESWAX OR HONEY WANTED in trade for supplies or cash. Hodgson Bee Supplies, Ltd., 575 - 13th Ave., New Westminster, B. C., Canada.

HONEY WANTED, all grades in 60's. Mail samples, advise quantity, best price. A. I. Root Company of Syracuse, 1112-14 E. Erie Blvd., Syracuse, N. Y.

CUT COMB AND EXTRACTED—Truck lot—white—needed immediately. Cash paid on receipt. LOSE BROTHERS, 204 East Jefferson St., Louisville 2, Ky.

WANTED—White clover honey. Cans exchanged if wanted. One can to three carloads. Cash on delivery. Honeymoon Products Co., Box 85, River Rouge 18, Michigan.

WANTED—10,000 60-pound cans of white clover or light amber honey. Must be in good cans. Cash payment. Prices f.o.b. Toledo, Ohio, are 11¾c for white honey and 11c for light amber. Rush samples. Alexander Company, 819 Reynolds Road, Toledo, Ohio.

FOR SALE

WRITE FOR CATALOG — Quality Bee Supplies at factory prices. Prompt shipment. Satisfaction guaranteed. The Hubbard Apiaries, Manufacturers of Beekeepers' Supplies and Comb Foundation. Onsted, Michigan.

THE BIGGEST BEE SUPPLY Catalog published (64 pages) free for the asking. Listing many items not found in other Catalogs. No agents—buy direct and save 20%. WALTER T. KELLEY CO., CLARKSON, KENTUCKY.

FOR SALE — New heart cypress 10-frame bottom boards. K.D., 10 or more $1.00 each; 50 or more, 90 cents each; 100 or more 85 cents each. One nailed up sample, postpaid $1.25. Fred L. Poole, Elizabethtown, Rt. 2, Box 67, No. Car.

ELECTRO Filling Machines, users and distributors. Write Stoller Honey Farms, Latty, Ohio.

BEE SUPPLIES—Tin packages; 10 sizes glass jars; paper shipping supplies; window cartons and other items. Roscoe F. Wixson, Dundee, N. Y.

The only comb foundation plant in the east. We sell foundation, work your wax, render combs and cappings. Robinson's Wax Works, R. D. 3, Auburn, N. Y.

BOXES for comb honey. Direct from manufacturer. Shadur Box Co., Milwaukee 9, Wis.

FOR SALE—Colony featured page 223 April Gleanings. McKee, Reading Center, New York.

BEAR AND BEEHIVE Salt and Peppers. Bears and Beetree candle holders. Date, honey gift packs. Free folder. Tontz Honey Farm, Dept. G, Elsinore, Calif.

1½ h.p. boiler, needs repairs, cheap. 150-gallon honey tank like new. Livermore Apiaries, Belle Center, Ohio.

FOR SALE—Complete set of Gleanings, 1875-1950. Lacks only 6 volumes, $100. Francis Higgins, Gallaudet College, Washington 2, D. C.

BEES AND QUEENS FOR SALE

We use all possible care in accepting advertisements but we cannot be held responsible in case disease occurs among bees sold or if dissatisfaction occurs. We suggest that prospective buyers ask for certificate of inspection as a matter of precaution.

YANCEY HUSTLERS—Three-band Italians. They get the honey. Queens balance of season, $1.00; $10.00 dozen. Caney Valley Apiaries, 2500 Nichols, Bay City, Texas.

YELLOW ITALIAN BEES. Real producers. Health certificate. Satisfaction guaranteed. Queens, $1.00 Airmail. O. E. Brown, Route 1, Asheboro, N. C.

CAUCASIAN Bees and Queens, 2-lb. pkg., $2.75; 3-lb. pkg., $3.50. Queens 75c each; 100, $65.00. Lewis & Tillery Bee Co., Greenville, Ala.

BEES FOR SALE—1200 hives. Equipment for 1500 more. Four trucks, modern honey house, good north Texas and South Texas locations. Considered to be among the best equipped in the country. Sell all or part. Robert Thomas, Fowlerton, Texas.

HONEY LABELS
Improved designs, embodying color, balance, simplicity, and distinction. Please send for free samples & prices.
C. W. AEPPLER COMPANY
Oconomowoc, Wisconsin

CAUCASIAN APIARIES
Breeders of
Ladylike Caucasian
bees and queens
Castleberry, Ala.

CAUCASIANS
CARNIOLANS
Prolific, good winterers, GENTLEST OF ALL RACES.
Rearing queens here in Florida during October. Price; untested, 90c each. October is not too late to replace failing queens. Better than to wait till spring.
Albert G. Hann, LaBelle, Florida

ITALIAN
Package Bees and Queens
Jackson Apiaries
Box 58 Funston, Ga.

"GULF BREEZE"
Italian Queens
PRICES:
1-24 ..... 80c ea.
25 up 75c ea. Airmailed
BESSONET BEE CO.
Donaldsonville, La.

QUEENS
By Air Mail
75c each
10 or more, 65c each
CARLUS T. HARPER
New Brockton, Ala.

HONEY WANTED
Carloads and less than carloads. Mail sample and best prices in all grades.
C. W. AEPPLER COMPANY
Oconomowoc, Wisconsin

Requeen Now:

To insure strong productive colonies next spring, be sure all colonies are headed by vigorous young queens capable of producing full combs of brood.

Such queens are to be had in Island Hybrids (Kelley's Island Hybrid). We have the equipment and stock developed on the Lake Erie Islands and can supply your needs from our Georgia queen yards. We have had many good reports about these queens and feel you can get the same results. Queen prices balance of season are:

	Island Hybrid	Reg. Rossman Stock
1-25	$1.25 ea.	$ .80 ea.
26 or more	1.15 ea.	.65 ea.

"They Produce"

Place your order early to insure queens when you want them.

Rossman Apiaries
P.O. Box 133 Moultrie, Ga.

PROTECT YOUR FUTURE. BUY YOUR SAVINGS BONDS NOW.

We have discontinued our bottling business and now handle only bulk honey.

To clear out our warehouse, we offer at large discount:

250 cs. 12 3-lb. Modernistic jars,	$ .75 cs.
100 cs. 12 2-lb. Modernistic jars,	.55 cs.
150 cs. 12 2-qt. Ball fruit jars,	.75 cs.
30 cs. 50 no. 5 tin	4.95 cs.
25 cs. 50 no. 10 tin	6.75 cs.
30 cs. 12 per cs., Libbey Safe edge drinking glasses	.30 cs.

Equipment

1 Flash heater	$ 60.00
1 Ton mixing tank with reduction gear box	95.00
1 Electric labeling machine	75.00
1 16 sheet Cellulo honey filter and bump pump	795.00
1 Diagraph stencil machine	50.00
1 National semi-automatic labeler	475.00
2 coils ½-inch wire strapping and wire strapping machine	25.00
1 100 gallon glass lined honey tank	25.00
5 roller conveyors with standards	

ALEXANDER CO.
819 Reynolds Rd., Toledo 7, Ohio

GOLDEN SELECT UNTESTED QUEENS, 1 to 25, $1.00 each; 25 up, 90c. Carolina Bee Farm, Graham, N. C.

CAUCASIAN QUEENS EXTRA GENTLE. Select queens. 1 to 25, $1.00 each; 25 up, 90c Black River Apiaries, Currie, North Carolina.

THREE BANDED ITALIAN queens. Select. 1 to 25, $1.00 each; 25 up, 90c each. Alamance Bee Company, Rt. 1, Graham, North Carolina.

FOR SALE —9 colonies bees and 25 extra supers, clean. First $52.00. Earl Henry, Gambier, Ohio.

FOR SALE—20 3-story colonies on orange location, $200. Joe Bray, 17815 Lakewood Blvd., Bellflower, California.

FOR SALE—About 300 colonies of bees in poor condition. All in standard ten-frame equipment enough to run a thousand colonies. 45-frame extractor, barrels, bees, equipment, etc., all for $2,000 cash. Honey house available for $500 extra. Located at Haines City, Fla., Owner Curtis D. O'Neill, Lancaster, N. Y.

SEEDS

EVERFLOWERING LOCUST (Robinia semperflorens) — plant this fall. Strong five to six foot trees (trimmed back for mailing) each $3.25, three for $8.00, postpaid. Ask for our Honey Plant catalog, trees, plants, and seeds for fall or spring planting. Pellett Gardens, Atlantic, Iowa.

MISCELLANEOUS

SECTION COMB HONEY production procedure steps, 50c. Glossary of Beekeeping Terms, 50c. United Industries, Dept. L, Box 440, Madison 1, Wisc.

Bargain in new or used honey cans or Root Supplies for cash or honey. Buckeye Honey Company, 3930 N. High St., Columbus 14, Ohio.

INSECTICIDES — PDB (Paradichlorobenzene) for wax moth control. Write for delivered prices and circular. BURTON APIARIES, WASHINGTON, INDIANA.

HELP WANTED

CO-WORKER, ambitious toward establishment. Wayne Keller, Oshkosh. Nebr.

WANTED — Young men interested in learning bee supply business. Openings in shipping, sheet metal, and printing departments. The A. I. Root Co., Medina, O.

HELP WANTED — Two men for the coming season. Give references. Howard Weaver, Navasota, Texas.

MAGAZINES

THE BEE WORLD international and scientific journal on bees and beekeeping, with apiculture abstracts. Monthly, including membership in the Bee Research Association, $3.00 per annum, including apicultural abstracts. Dr. Eva Crane, Director, 55 Newland Park, Hull, Yorks, Eng.

INTERESTED in Angora Goats? Read the Sheep and Goat Raiser, Hotel Cactus, San Angelo, Texas, the only ranch magazine published serving the Angora Goat industry. Subscription $1.00. Sample copy fifteen cents.

The most revolutionary improvement in the hive since Langstroth—

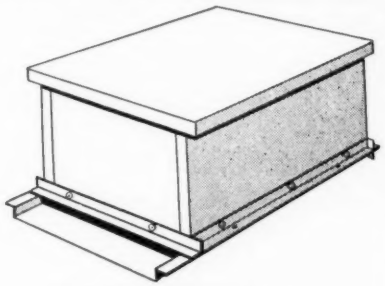
The "UNI-TEMP" ALUMINUM HIVE

- Cooler in summer
- Warmer in winter
- Exceptionally long life
- Light weight
- Rust free, rot free
- Never needs painting
- Accurately bee-spaced

(Patent application in preparation.)

Ask for our Free Catalog

The A. H. HALE CO.



Hapeville, Georgia

HONEY PLANTS OF SOUTH JERSEY

(Continued from page 596)

barrens of New Jersey is that shrub of the highlands, mountain laurel (**Kalmia latifolia**). In Atlantic County, the woods are white with the flowers in early June. The mountain laurel, although worked industriously by the bees, is somewhat of a problem. It is reputed by many authorities to produce poisonous honey, as many cases have been reported of supposed poisoning after eating honey made from this plant. Whether or not this is true we will not attempt to say. But, due to the fact that the laurel is so prevalent in this section, and that the flowers **are** worked by the bees, and that there are very few reports of serious trouble resulting from eating of honey in these sections, we are inclined to believe that cases of laurel poisoning may be due to some strange allergy on the parts of those eating the honey.

There is no doubt, however, that the various laurels **are** poisonous if eaten by stock. Not only the mountain laurel, but the smaller or sheep laurel (**Kalmia augustifolia**) is poisonous, the latter being known as "Lambkill".

Rhododendrons are also said to produce poisonous honey, and while these are not found to any great extent in the southern part of New Jersey, they are abundant in the northern half, and a few reports of trouble come from this section. One member of the family, the swamp azalea (**Azalea viscosa**) is found in South Jersey.

The tulip popular (**Liriodendron tulipofera**) is a very common tree in all parts of the eastern states. This tree, which is neither a "tulip" nor a "poplar", but a member of the magnolia family, is a famous honey producer. The swamp magnolia or sweet bay (**Magnolia glauca**) also grows plentifully in South Jersey. A member of the legume family, the Prickly pea shrub or rose acacia (**Robenia hispidia**) is another shrub found in the pine barrens.

AMERICAN HONEY INSTITUTE NEWS NOTES

(Continued from page 605)

We urge every beekeeper to take advantage of this publicity by promoting honey locally during this week. Be sure to send for the free window streamers that the Institute is giving away to any beekeeper or store keeper or retailer who will put them to good use.

Order 12 of the posters pictured in last month's Gleanings in Bee Culture, page 523. 12 for $1.00 postpaid.

And make good use of our other literature and display material. We will send you a price list if you will just drop us a postcard to let us know you are interested.

Read the South African Bee Journal. Published every two months. Subscription 7/6 per year to the Treasurer, P. O. Box 3306, Cape Town, South Africa.

Know interesting facts concerning the bees of India through the INDIAN BEE JOURNAL, published in English by the Bhupen Apiaries (Himalayas), Ramgarrh Dist. Naini Tal, U. P., India, or available through them. Subs. Rs7/ or 10 shillings or 2.25 dollars per annum. Single copy Rs ¼s. 1/9 or 40 cents (International Money Order). Payment in mint postage stamps of your country accepted.

SELECTED ITALIAN QUEENS
any number 75c

CAUCASIANS
90c

All queens shipped Air Mail and guaranteed to please. From June 1st to Nov. 1st.

Walter D. Leverette Apiaries

P.O. Box 364 Fort Pierce, Fla.

Personally Reared
Caucasian Queens
$1.00 each
Large lots 90c each
HOWARD WEAVER
Navasota, Texas

HOW TO HANDLE CAPPINGS

(Continued from page 591)

hot water while the jack is being tightened. Most of the remaining wax will be forced from the sack and will float to the surface, where it can be drained off or permitted to harden into a cake.

Additional wax can be salvaged if the refuse from the steam chest, Peterson melter, or Brand melter is also placed in sacks and put through the wax press.

Cautions

1. Wax should never be heated over an open flame because of the fire hazard. This is particularly important inside a building.

2. Whenever honey is fed back to bees, sodium sulfathiazole should be added as a preventive measure against American foulbrood.

3. Overheated honey is very hard on confined bees, and therefore it should be used only for spring feeding.

BETTER-BRED QUEENS **THREE-BANDED ITALIANS**
We still have a limited quantity of our Better-Bred Queens at 65c each.
CALVERT APIARIES **Calvert, Alabama**

YORK'S QUALITY BRED QUEENS
TWO STRAINS
Queens Bred Up to a Quality, Not Down to a Price

YORK'S ITALIANS		DADANT STARLINES	
1-24	$1.00	1-24	$1.35
24-99	.90	24-99	1.25
100-up	.80	100-up	1.15

The Preference of Leading Honey Producers
Reg. U. S. Pat. Off.
YORK BEE COMPANY JESUP, GEORGIA U. S. A.
(The Universal Apiaries)

ITALIAN QUEENS **PACKAGE BEES**
Packages With Young Laying Queen
At the Following Prices:

	1-9	10-99	100-up
2 lb.	$3.25	$3.00	$2.75
3 lb.	4.25	4.00	3.75
4 lb.	5.25	5.00	4.75

After July 1, Queens $1.00 each—Starline Hybrids $1.25
Reg. U.S. Pat. Off.
We guarantee safe arrival, a health certificate with each shipment, and prompt service.
Our Queens are reared under my own personal supervision, our aim is QUALITY NOT QUANTITY.
LITTLE'S APIARIES P. O. Box 122 Shelbyville, Tennessee

NEED A QUEEN?
We have them—Hollopeter goldenrod-aster reared young Italians.
—PRICES—

1-9	$1.00 each
10-24	.90 each
25-49	.80 each
50-99	.75 each
100-up	.70 each
Tested queens	1.50 each

WHITE PINE BEE FARMS, Rockton, Pa.

GIRARDEAU APIARIES
Tifton, Ga.
Shippers of
Italian Package Bees
and Queens

GOOD QUEENS? We have them. Three-Banded Italians only. Tops in production and gentleness. The choice of leading beekeepers for more than 30 years. Requeen now for good wintering and maximum production next year.

$1.00 each 10, $9.00 25, $20.00 100, $80.00

Prompt shipment. Postpaid. No disease.

H. C. SHORT, Fitzpatrick, Ala.

FOR TOP QUALITY AND SERVICE—SEND US YOUR ORDERS

We offer Two Quality Strains:

DADANT'S STARLINE HYBRID QUEENS

GARON'S THREE-BANDED ITALIAN QUEENS

PRICES:

Italians	1-24	$ .80	Starlines	1-24	$1.20
	25-99	.75		25-99	1.15
	100-up	.70		100-up	1.00

Reg. U. S. Pat. Off.

Queens Air Mailed, Clipped and Painted, if desired at no extra charges.

GARON BEE COMPANY DONALDSONVILLE, LA.

QUEENS QUEENS QUEENS

"ITALIANS"

We offer you young laying queens, shipped prepaid, airmail. Mark colonies with old and failing queens and replace when conditions are favorable. Queens available until November 1st. Clipped and painted at no extra cost.

1-9	.75 ea.
10-up	.70 ea.
Tested Queens	$1.50 ea.

Quality Does Not Cost — It Pays

THE WILBANKS APIARIES CLAXTON, GEORGIA

JENSEN Says:

Last Calls for Queens in 1953

We hope to have enough good summer-reared queens to fill all late orders through October. After that we will be closed for this year and getting ready for 1954.

"Magnolia State" Italians	"Starline" Hybrids Dadant Improved Stock	Reg. U. S. Pat. Off.
$1.00 each	$1.25 each	

Long as they last

JENSEN'S APIARIES MACON, MISSISSIPPI U.S.A.

ITALIAN QUEENS

$1.00 each

Pure mating guaranteed

W. E. PLANT

Hattiesburg, Mississippi

Booking orders now. Over 30 years a shipper. Send for Free Circulars.

BLUE BONNET APIARIES

Weslaco, Texas

KELLEY — "The Bee Man"

QUEENS

KELLEY ISLAND queens by the thousand are available now. If you are in a rush count on us for quick shipment by return air mail.

1-24 ..... **75c by prepaid air mail**

25-up ..... **65c by prepaid air mail**

THE WALTER T. KELLEY CO., Clarkson, Ky.

Index to Display Advertisers

Aeppler Co., C. W. 635
Alexander Co. 636
American Bee journal
.....Inside front cover
Bessonet Bee Co. 635
Blue Bonnet Apiaries 639
Bryant & Sawyer 579
Burleson & Son, T. W. 580
Calvert Apiaries 638
Caucasian Apiaries 635
Chrysler & Son, W. A. 582
Freund Can Co. 582
Garon Bee Co. 639
Girardeau Apiaries 638
Hale Co., The A. H. 637
Hann, Albert G. 635
Harper, Carlus T. 635
Hazel-Atlas Glass Co.
.....Inside back cover
Hubbard Apiaries 579
Hutchison Mfg. Co. 580
Jackson Apiaries 635
Jensen's Apiaries 639
Jepson Co., H. H. 579
Kelley Co., The Walter T. 640
Koehnen & Sons, C. F. 580
Leverette Apiaries, Walter D. ...638
Little's Apiaries 638
Lotz Co., August 579
Marshfield Mfg. Co. 581
McCord Mfg. Co. 583
Miller & Co., Woodrow 582
Mitchell's Apiaries 580
Muscular Dystrophy Asso. 578
Muth Co., The Fred W. 579
National Foundation for
Infantile Paralysis 580
Plant, W. E. 639
Prairie View Honey Co. 578
Root Co., The A. I.
Outside back cover 583, 584
Root Co. of Indianapolis, A. I. ..580
Root Co. of Syracuse, A. I. 583
Rossman Apiaries 636
Short, H. C. 639
Stoller Honey Farms 582
Weaver, Howard 638
White Pine Bee Farms 638
Wilbanks Apiaries 639
Williams Bros. Mfg. Co. 582
Winegar, Leon A. 582
Woodman Co., A. G. 580
Yates, A. W. 578
York Bee Co. 638